Equity and lifelong learning in European vocational education & training

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SUMMARY

The aim of this e-book is to provide an empirically grounded framework for understanding equity issues in vocational education and training with an emphasis on learning to learn, which is anticipated to help national and regional education authorities across Europe to promote equity in vocational education and training (VET) through the development and implementation of targeted strategies and interventions.

This framework was developed through an iterative process of theory development, qualitative and quantitative empirical research and analyses, and synthesis of views expressed in the context of a wider dialogue and experience sharing that took place between national research teams and vocational education professionals, students and graduates in individual and group discussions in vocational schools and during workshops that were organised in Poland, Greece, Germany, Spain and Turkey. The above were undertaken in the context of the project "Facilitating Reflections on Equity in LLL Strategy -FARE" (2010-11)[1]. In total, the FARE national teams engaged directly in research activities 62 VET teachers, 12 administrators/policy makers mostly at regional/school levels, 388 VET students and 36 VET graduates. In the consolidation of the FARE framework and results participated around 103 VET administrators and teachers and around 100 students.

The proposed framework on equity in vocational education and training is based on the following basic questions that need to be answered in comprehensive ways in order for national and regional authorities, in collaboration with policy makers and stakeholders, from parents, teachers and students to municipal and regional government authorities, professional associations, employers' and employees' unions, and other interested civil society organizations and groups, to design and implement strategies and initiatives promoting equity in vocational schools and programmes, with an emphasis on the lifelong learning prospects of students:

- What wider socio-economic trends challenge VET?
- How social inequalities and patterns may affect issues of equity in education?
- What are system-wide educational equity problems that have to be taken into account?
- What are systemic/institutional level issues that may affect equity in vocational education?
- What is the socio-economic and educational background of students who choose vocational paths?
- What are the vocational students' dispositions and practices towards learning to learn?

[1] See http://fare.iacm.forth.gr/project.php.

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1. Introduction

The aim of this e-book is to provide an empirically grounded framework for understanding equity issues in vocational education and training with an emphasis on learning to learn, which is anticipated to help regional education authorities across Europe to promote equity in vocational education and training through the development and implementation of targeted strategies and interventions.

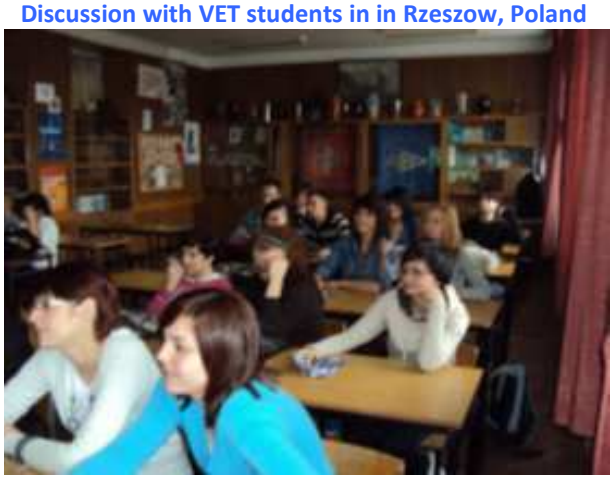
This framework was developed through an iterative process of theory development, qualitative and quantitative empirical research and analyses, and synthesis of views expressed in the context of a wider dialogue and experience sharing that took place between national research teams and vocational education professionals, students and graduates in individual and group discussions in vocational schools and during workshops that were organised in Poland, Greece, Germany, Spain and Turkey. The above were undertaken in the context of the project "Facilitating Reflections on Equity in LLL Strategy -FARE" (2010-11).

In particular, in the area of Berlin in Germany the FARE team engaged in research activities 17 VET graduates currently enrolled in training programmes offered by two adult education institutions, 57 students from two VET schools, and 4 VET teachers. In the area of Barcelona, Catalonia, Spain, the FARE team engaged in research activities 3 school administrators, 23 VET teachers, 19 VET students and 19 VET graduates. In Greece's national context, and specifically in the regions of Attica and Piraeus (Petroupolis and Salamina), and in Heraklion, Crete, the FARE research team involved in research activities 1 central level policy maker, 2 regional school advisors, 6 school administrators from four VET schools (two Vocational Lyceums and 2 School Laboratory Centres), 7 VET teachers in one VET school (all formal interviews; 3 of the school administrators were further involved in ethnographic research), 15 VET teachers in non-formal interviews and around 100 VET students during ethnographic research in two cooperating VET schools (Lyceum and Centre), and around 100 VET students from three VET schools in closed questionnaire-based research. In the wider area of Rzeszow, Poland, 96 vocational education students (in Technikums and Basic Vocational schools) participated in a survey research, and 16 students participated in in-depth interviews.

Furthermore, a wider circle of VET teachers and administrators, as well as students contributed to the consolidation of the FARE framework and results in workshops organised by the FARE national teams. This group involved 1 school administrator and 7 VET teachers in Barcelona (Spain), 30 VET regional/school administrators and teachers in Heraklion (Greece), 10 local/school administrators in Berlin (Germany), 25 people, mostly regional and school administrators in Kayseri (Turkey), 100 students in Rzeszow (Poland), with the main workshop also in Rzeszow attended by around 30 school teachers, school administrators and regional education directors. In total, the FARE national teams engaged directly in research activities 62 VET teachers, 12 administrators/policy makers mostly at regional/school levels, 388 VET students and 36 VET graduates. In the consolidation of the FARE framework and results participated around 103 VET administrators and teachers and around 100 students.

Discussion with VET professionals during the FARE workshop in Berlin, Germany

Discussion with VET students in in Rzeszow, Poland



Discussion with VET professionals during the FARE workshop in Heraklion, Greece

Discussion with VET professionals during the FARE workshop in Rzeszow, Poland

Discussion between VET administrators in the area of Heraklion with delegates of educational authorities of the Kayseri region in Turkey

Discussion during a visit of an international group of FARE members in a local factory in Kayseri, Turkey

Classroom teaching in vocational school in Kayseri, Turkey visited by an international group of FARE members

From the visit of a delegation of educational authorities of the Kayseri region in Turkey to a school laboratory in Heraklion, Greece

Discussions between FARE members and teachers in a vocational school in Kayseri, Turkey

From the visit of a delegation of educational authorities of the Kayseri region in Turkey to a school laboratory in Heraklion, Greece

Photo taken during empirical research in a vocational school in Salamina, Greece

Photo of students in a chemistry laboratory in a vocational school in Kayseri, Turkey taken during the visit an international group of FARE members

The FARE framework on equity in vocational education and training is based on the following basic questions that need to be answered in comprehensive ways in order for regional authorities, in collaboration with national authorities and stakeholders to design and implement strategies and initiatives tackling issues of equity in vocational schools, with an emphasis on the lifelong learning prospects of students, in their region:

- What wider socio-economic trends challenge VET?
- How social inequalities and patterns may affect issues of equity in education?
- What are system-wide educational equity problems that have to be taken into account?
- What are systemic/institutional level issues that may affect equity in vocational education?
- What is the socio-economic and educational background of students who choose vocational paths?
- What are the vocational students' dispositions and practices towards learning to learn?

To answer these questions it is necessary to build a shared understanding and consensus between policy-makers and stakeholders, from parents, teachers and students to municipal and regional government authorities, professional associations, employers' and employees' unions, and other interested civil society organizations and groups about what constitutes equity in education and training and what we mean by learning to learn. The FARE project has worked upon these two constructs, proposing the following conceptualisations.

1.1 Defining equity in vocational education and training

According to the sociologist Walo Hutmacher (2001, p. 5), education and educational systems lie at the heart of crucial tensions between formal civic and legal equality, on the one hand, and the inequality of real social conditions and positions on the other. For Hutmacher, inequality is integral to the operation of schools and education systems because they distribute desirable goods unequally. Students not only and not simply perform unequally in relation to prevailing standards, but also obtain access to unequal tracks and curricula, thus achieving unequal knowledge and competencies. Moreover, after the completion of schooling, the returns on investment are unequal, and unequal levels of education typically have major consequences in terms of economic, social and cultural inequality (o.p.). According to Hutmacher (2001, p. 12),

> … there is a rising awareness in schools and public opinion that the education system does not play a passive or neutral role in the process by which social, cultural and economic inequalities transpose into scholastic and academic inequalities, which in turn translate into socio-economic inequalities. Increasingly, questions are raised about how education systems deal with the differences between students, on the assumption that, in a diversified, pluralistic and unequal society where life conditions vary considerably, such differences are inevitable. Do education systems ignore, confirm, re-enforce or reduce differences and inequalities? And how do diverse national societies compare in this respect?

During the last 30 or so years the causes of educational inequalities and the mechanisms though which these are (re)produced have been theoretically and empirically explored under different sociological frameworks. Reviewing several of them, Benadusi (2001) argued that within the sociological tradition some conceptions of equity and equality in education have prevailed: a) the classic and still widespread conception of equal opportunity for students belonging to different types of social groups, meaning that scholastic outcomes must be independent of ascriptive or background variables, b) the conception of equal opportunity as a citizenship right which implies that it is

necessary to establish a minimum threshold of instruction and competencies to be guaranteed to all citizens as a basic social right and that any variance from this rule should be considered unfair, and c) more post-modernist conceptions which support the view that all social groups and all individuals have an equal right to be given instruction modelled on their own particular ways of perceiving and constructing their educational needs.

> Equity in education has two dimensions. The first is fairness, which implies ensuring that personal and social circumstances – for example gender, socio-economic status or ethnic origin – should not be an obstacle to achieving educational potential. The second is inclusion, which implies ensuring a basic minimum standard of education for all – for example that everyone should be able to read, write and do simple arithmetic. The two dimensions are closely intertwined: tackling school failure helps to overcome the effects of social deprivation which often causes school failure.
>
> Field, S., Kuczera, M. and Pont, B. (2007). *Education and Training Policy No More Failures, Ten Steps to Equity in Education*, OECD, p. 11.

According to the NESLI educational equity framework (Levin and Yip, 2010) of the INES Network (OECD's Indicators of Education Systems), educational equity has the following dimensions:

- *Educational Outcomes*—Ultimate educational attainment and achievement.
- *Intermediate Outcomes*—Attainment and achievement at various stages of educational system.
- *Educational Access*—Proximity of school opportunities.
- *Educational Resources*—Amount and quality of resources (e.g. facilities, teachers, educational spending).
- *Educational Processes*—Richness of curriculum offerings and quality of instruction as well as degree of student stratification or segregation.

Overall, the concept of equity in education is very closely related to the concept of variation in opportunities, access, treatment and outcomes and in particular to the possible sources of variation. Only few sources of variation are commonly not believed to have negative implications regarding equity in education (but not equality in education), such as individual effort or inclinations and talents. All these sources have to do with the individual "learner", or rather the image of the individual "learner", as an autonomous entity with inner, original, characteristics and qualities, abilities, needs, wants and motives and of course behaviour. It is widespread the belief that it is only fair for students with different abilities, motives, dreams, inclinations and effort to get different marks, follow different educational paths or have different progress in the educational "ladder" and ultimately enjoy different "returns" from their learning efforts, both monetary and non monetary. Under this perspective inequalities in education are not unfair if they result from unequal individual effort or different motives, inclinations, abilities and talents. On the other hand, other sources of variation in educational opportunities, access, treatment and outcomes identified at socio-economic, institutional, geographic, school or classroom levels such as the socio-economic background of students, place of residence, their origin, race or gender and culture, or the quality of the school curricula, teachers and learning materials available in schools, are commonly assumed to indicate inequitable discriminations. Generally speaking such discriminations are considered as non tolerable. However, it is both theoretically and empirically very difficult to "isolate" the individual from its social environment, including the school environment. Moreover it is difficult to define what, within a system of education, should be the common to all students standards regarding opportunities, access, treatment and outcomes and what can be justified as "fairly varying" standards of provision (such as targeted investments for disadvantaged groups or for those who are among the best performers). Within developed educational systems, the idea of compulsory education is build on the assumption that all students not only have to have the same chance of achieving an academic goal (equality of opportunity), have access to the same quality of educational service and benefit from

equal treatment but also, at the end of the day, to obtain a minimum level of equal results, broadly described as literacy. At EU level these equal results are described with the term "key competencies" which all young people have to develop in initial education and training "to a level that equips them for adult life".

Because Initial Vocational Education (I-VET[2]) usually commences at upper secondary education level, any discussion on equity issues in I-VET but also C-VET presupposes a deep understanding of equity issues at earlier stages of education, i.e. in pre-primary, primary and lower secondary education. This is because advantages and disadvantages in *opportunities*, *access*, *treatment* and *outcomes* created and established during these earlier stages of education lay the foundations upon which equity issues in upper secondary and further education are produced and reproduced. Following the approach to equity in education adopted by the European Commission[3], in the context of the FARE framework equity in VET is viewed as the extent to which all prospective and current VET students as well as I-VET graduates can take advantage of the VET system of the country and region they are living in, in terms of *opportunities*, *access*, *treatment* and *outcomes*. From the system of education perspective, equitable national and regional VET systems ensure that *opportunities*, *access* and *outcomes* of VET are independent of the socio-economic background and other factors that lead to educational disadvantage of students and that *treatment* reflects individuals' specific learning needs. Also, equitable national and regional education and training systems actively try to ensure that VET is treated in equal terms to general/academically oriented education. This, among others, includes infrastructure, human resources, curriculum quality, financial support and policy initiatives. At the national and regional level of analysis of educational systems, the FARE project conceptually identifies two dimensions of equity in VET:

- *equity within* the population of VET students and graduates, and
- *equity between* VET students and graduates and students and graduates with the same ISCED level of general/academically oriented or comprehensive education.

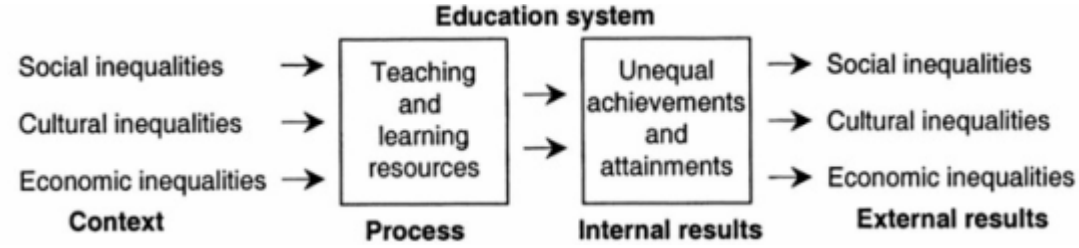
As it has already been pointed out, a discussion on equity issues in VET presupposes a deep understanding of equity issues at earlier stages of education; however this will not suffice. In order to develop a broader picture about education in a country or a region it is useful to look at data indicating the education attainment of the adult population because this offers a perspective on what has been the situation in the past regarding opportunities and access to education and how much things have changed for the younger generations. Particular emphasis in the context of the FARE framework is placed on gender issues as these are reflected not only in education attainment but also in employment.

It is also of paramount importance to overview some wider economic and societal trends and historical developments that may have an impact on VET and equity issues. As Hutmacher (2001) puts it, "inequalities in economic, cultural and social capital characterize the context of education systems, and across generations they can be considered inputs to them as well as outputs from them, the question being precisely if and to what extent they succeed in reducing disparities" (p. 17). Therefore, the major inequality structures of society should be taken into account in the development of a comprehensive strategy and action plan to tackle problems of equity in education and training in regional and national levels (see diagram below).

[2] For a review of I-VET systems in Europe see CEDEFOP: http://www.cedefop.europa.eu/EN/Files/IVET_Review_08.pdf.

[3] Communication from the Commission to the Council and to the European Parliament: "Efficiency and equity in european education and training systems", Brussels, 8.9.2006, COM(2006) 481 final, p. 2.

Diagram 1: Systemic model relating input, process and output of education systems with each other and with the specific economic, social and institutional contexts (from Hutmacher, 2001, p. 18).



1.2 How learning to learn can be conceptualised?

The FARE framework on equity in vocational education and training is pays particular attention to equity in regarding "learning to learn", a competency which is of paramount importance in ensuring that VET students will leave school well equipped to continue autonomously the pursuit of learning and professional development throughout their lives. In a way, learning to learn is, or should be, one of the most fundamental outcomes of formal education and inequalities in developing learning to learn attitudes, knowledge and skills on the basis of the students' gender, socio-economic situation, cultural or ethnic background or on the basis of their choice of educational stream (vocational vs academic) would indicate serious failures of the education systems to treat their students with fairness, respect and inclusiveness.

According to a recommendation which identified eight key competencies for lifelong learning and adopted by the Council and the European Parliament in December 2006, the key competence "learning to learn"

> …is the ability to pursue and persist in learning, to organise one's own learning, including through effective management of time and information, both individually and in groups. This competence includes awareness of one's learning process and needs, identifying available opportunities, and the ability to overcome obstacles in order to learn successfully. This competence means gaining, processing and assimilating new knowledge and skills as well as seeking and making use of guidance. Learning to learn engages learners to build on prior learning and life experiences in order to use and apply knowledge and skills in a variety of contexts: at home, at work, in education and training. Motivation and confidence are crucial to an individual's competence (Education Council, 2006 annex, paragraph 5).

As Karsten (2009) argues in a literature review performed in the context of the *Learning to learn –L2L* project (2008-10), "*learning to learn* remains, despite the increasing political and academic attention it enjoys, a slippery and contested notion with multiple connotations. Its conceptualisation is characterised by much confusion and it lacks a solid theoretical foundation" (p. 4). Indeed, recent reviews of the academic literature have identified a wide spectrum of conceptualisations of the notion "learning to learn" which presuppose or adhere to divergent epistemological frameworks and sociological, psychological and cultural-historic traditions and research orientations (Karsten 2009; James *et al*. 2007; Hoskins and Fredriksson, 2008; Stringher, 2006). Others have pointed out that the key competency "learning to learn" may theoretically/conceptually be difficult to distinguish from the "social and civic competencies" of the EU reference framework (Hoskins and Crick, 2010). Exploring critically for various plausible interpretations of the claim that "learning how to learn" is the central ability required for young people to be effective "'lifelong learners", Winch (2008) concluded that there is no general ability to "learn how to learn". As he put it, "it is, perhaps, a measure of our failure to educate our population adequately that we cast around for such desperate remedies as an ability that has never been recognised before and cannot be intelligibly described, despite many attempts to

do so" (Winch, 2008, p. 663). According to Winch, instead of trying to "invent" a human capacity which does not exists it is better to focus on skills, dispositions and virtues that we practice as human beings from ancient times and see how these can be improved. He suggests that what matters most is not so much the cognitive attributes of the learner as certain non-cognitive dispositions and character traits which form aretaic (virtue-based) and personal qualities decisive in developing independent learning in a range of subject matters (o.p.). On their part, Black and his colleagues (2006), reviewing constructivist conceptualisations on learning suggested that "… a separation of learning to learn from the learning process itself is both hard to justify and unproductive. We see the need for a range of elements of learning to be part of any approach to L2L. This does not imply that we should discourage children from thinking about how they learn, and about the process of learning, but rather that we should not try to separate it out as a particular ability or skill" (p. 124). In brief, there appears to be a lot more pluralism and variability in the academic discourse on "learning to learn" than is admitted by the dominant political discourse on this topic and particularly about its implications for further research as well as political action.

Various conceptualisations of "learning to learn" can be identified as stemming from a few dominant traditions, mainly the cognitive and the constructivist and to a lesser degree the socio-cultural. All traditions place some emphasis on the affective dimension of learning to learn, a dimension which is however largely unexplored, particularly in relation to the equity aspect of learning to learn, which both are the focus of the theoretical and empirical research focus of the FARE project. During the last decade several attempts have been made, almost all of them in Europe, to develop conceptual frameworks and operationalise the concept of "learning to learn" in order to construct instruments and devise techniques that would measure the extent to which students at various stages in formal education have developed such a competency (Hautamäki, *et al*., 2002; Crick, Broadfoot and Claxton, 2004; Black, McCormick, James and Pedder, 2006; James, 2007; Crick, 2007; Kupiainen, Hautamäki and Rantanen, 2008; PISA, 2010, vol. III).

Our review of the various efforts to develop coherent frameworks with the aim to identify and measure dimensions of learning to learn has led us to the conclusion that this construct has less to do with knowledge and skills and more with dispositions towards learning new things. In the context of the FARE framework the notion "learning to learn" is understood as *learning ethos*, that is as a system of guiding ideals and beliefs (individual and/or collective) focusing on the intrinsic value of learning, relatively independent from its (always co-existing) instrumental uses and the extrinsic motivations associated in achieving pragmatic aims, as learning for learning's sake.

The *Love of Learning* perhaps describes best the essence of learning to learn as opposed to the *Hate for Learning*, which epitomizes everything that has nothing to do with learning to learn. The individual who is "learning to learn ready", is not the one that has certain super-ordinate, transferable skills and some fundamental knowledge that enable her to learn about everything she wants. It is not, that is, a self-directed, self-regulated, autonomous "learning machine". Instead, she is truly passionate about learning. It is characteristic of the discourse on learning to learn that perhaps the most quoted statement is the following by John Holt (1964, p. 177):

> since we can't know what knowledge will be most needed in the future, it is senseless to try to teach it in advance. Instead, we should try to turn out people who love learning so much and learn so well that they will be able to learn whatever needs to be learned.

Holt's basic critic to "education", as this is provided by formal schooling (but also at home) is that in effect destroys the otherwise "natural" desire and ability of children to learn. As he puts it, we destroy the disinterested (but not uninterested) love of learning in children by setting up a system of rewards and punishments and encouraging them to feel that the end and aim of all they do in school

is nothing more than to get a good mark on a test. This way, we kill not only children's curiosity but also their feeling that it is a good and admirable thing to be curious. All this talk about the disinterested love of learning makes little sense in the context of the technical jargon of the current academic discourse on learning to learn and particularly on the dominant political discourse on this matter, but it makes perfect sense at ground level, between teachers, students and parents. Particularly in schools where academic failure and disengagement from learning is widespread among students, the re-establishment of a love for learning is often seen as the best way to change. Describing a bottom up approach to school change, one literacy specialist in a troubled high-poverty elementary school in the USA noted the following:

> When I first arrived, reading was not something that was valued by the children...The emphasis was not on creating a love of learning, but it focused on discipline. Any model that we looked at and compared to this school just seemed far too narrow. And I knew in my heart that if we were going to make a difference in the lives of these children, we needed to literally enrich their lives and not see reading as something they need to do (Gerstl-Pepin and Woodside-Jiron, 2005, p. 236).

The conceptual proximity of learning to learn with the love of learning is not something new. For example, back in 1995 the Royal Commission on Learning, which was established by the Province of Ontario, Canada, "to ensure that Ontario's youth are well-prepared for the challenges of the twenty-first century", suggested that one of the important purposes of Ontario's schools should be learning to learn in order to "foster a love of learning as a foundation for continuous lifelong learning, by nurturing the natural curiosity of students" (Royal Commission on Learning, 1995, ch. IV). According to this report, the love of learning comes from intrinsic motivation. Therefore, external rewards and also punishments such as those resulting from test results should not become overly important to the learner. As learning moves from intrinsic motives to extrinsic ones it becomes less likely for the students to continue with their learning once the reward has been received. As it was argued in this report (o.p., ch. V),

> we must nurture curiosity, make learning interesting and challenging, and help youngsters, especially in their early years, to appreciate the challenges and pleasures of learning. Only then can we develop citizens with a sense of obligation to do their personal best, not merely for a mark or a pay cheque, but because they derive satisfaction from the challenge of working a problem through.

In a similar vein, the *Open Minds* project of the Royal Society of Arts in the UK identified positive motivation as a key competence for learning in the sense that students learn to enjoy and love learning for its own sake and as part of understanding themselves[4].

The desire to learn and the joy that comes with learning are natural to young children but parents play an important role in shaping their relationship to learning. According to Lumsden (1999),

> when parents nurture their children's natural curiosity about the world by welcoming their questions, encouraging exploration, and familiarising them with resources that can enlarge their world… they are giving their children the message that learning is a worthwhile endeavour, and that it is also frequently fun and satisfying. If, on the other hand, parents are consistently unresponsive or react with irritation or impatience when their children inquire about things that intrigue them, over time their children will probably curb their attempts to learn more about the world. Their natural interest in learning will probably begin to wane… (p. 15-6).

[4] See http://www.rsaopeningminds.org.uk/about-rsa-openingminds/competences/.

Parents surely can motivate or demotivate their children to learn new things and explore the world but how much and in what ways is this related to their socio-economic background? Stipek and Ryan's (1997) research on pre-schoolers and kindergarten children showed that the economically disadvantaged children performed much poorer as compared to advantaged children on all 8 cognitive tests they administered, including tests of basic reading-related and number skills, problem solving, creativity, memory and language skills. In other words, children from low income homes begin school at a considerable academic disadvantage. In contrast, their research showed that the economically disadvantaged children were no less motivated than the advantaged children. According to Stipek and Ryan (1997), their findings "… suggest that most young children, whatever their family economic situation, enter school with considerable enthusiasm, self-confidence, and willingness to take on learning challenges" (p. 721). The results further offered evidence that during the course of the school year, advantaged children became more concerned about their performance, their anxiety increased, their enjoyment decreased as well as their willingness to take risks in performing some test tasks. The above indicate that, perhaps because of increased expectations and pressure from home, middle class children may enter into a potentially negative motivation trajectory. On the other hand, the disadvantaged children who had relatively poor cognitive skills appeared to develop a more negative view regarding their competencies and more negative attitudes towards school, something which suggests that possibly over the first years in school motivation for learning could become a problem for them.

Certainly with schooling the love of learning is filtered through the socialisation patterns and learning values recognised and cherished by the school. The school is the place where it gradually becomes very clear to the young children that they should no longer learn new things primarily driven by their curiosity and interest about the world; instead, they have learn through the channels of structured and repetitive classroom practices on a day to day basis. They learn new things in different ways than at home or at the playground but also they learn a lot of things about the special value of learning new things at school and for the school. During the process some children loose the appetite for new learning as this is recognised and assessed at school, become disillusioned or get alienated and leave school early. The problem of early school leaving is quite alarming in many countries across Europe, particularly among the male students.

Characteristic are also the findings (Mullis *at al*., 2007), based on the 2006 Progress in Reading Literacy Study (PIRLS) Index of Students' Attitudes Toward Reading[5], where 10% or more of 4th graders scored "low" (that is they tend to have rather negative attitudes towards reading) in the Netherlands (16%), Belgium (Flemish, 16%), England (15%), Scotland (14%), Denmark (12%), Hungary (11%), Austria (10%), Poland (10%), and Sweden (10%). In contrast, in no country which participated in PIRLS 2006 the percentage of students scoring "low" in the Index of Students' Reading Self-Concept was more than 7%. This finding suggests that, at least in the countries mentioned above, it is more likely that 4th graders perceive themselves as good readers than to hold positive attitudes towards reading.

Students, as they proceed from grade to grade and from school level to school level, appear to become less and less interested in reading for pleasure and personal interest, that is interested to engage without external pressure in one of the most basic and fundamental ways of systematic learning in human history of the last centuries. According to the PISA 2009 analysis on learning to learn (PISA, 2010, vol. III), on average across OECD countries, 37% of 15 year olds who are students

[5] Based on students' agreement in a 4-points scale on the following: I read only if I have to, I like talking about books with other people, I would be happy if someone gave me a book as a present, I think reading is boring, and I enjoy reading. "Low" level indicates an average of 1 to less than 2; in the 4-points scale, 1 means "disagree a lot" and 2 "disagree a little".

report that they do not read for enjoyment at all. This figure is even higher in some of the most developed European countries (45% or more in Austria, the Netherlands, and Luxembourg). The above clearly reflect huge problems regarding the effectiveness of schools in promoting the love of learning to students, something which has huge implications regarding the capacity and willingness of today's students in engaging in systematic ways in new learning throughout their lives. Furthermore, the PISA findings indicate that differences in how boys and girls approach learning and how engaged they are in reading account for most of the gap in reading performance between boys and girls; as it was estimated, this gap could shrink by 14 points if boys approached learning as positively as girls, and by over 20 points if they were as engaged in reading as girls. Factors such as predisposition, temperament, peer pressure and socialisation may contribute to boys having less interest in reading than girls. Finally, according to the PISA report on learning to learn, changing students' attitudes and behaviours may be inherently more difficult than providing equal access to high quality teachers and schools, two of the factors that explain the low performance of socio-economically disadvantaged students.

2. Wider socio-economic challenges to VET

Undoubtedly, the current economic crisis poses huge challenges to European societies and economies with important implications to the systems of vocational education and training. As it was argued in the European Commission Communication "*Europe 2020, A strategy for smart, sustainable and inclusive growth*" in March 2010, the current crisis has no precedent in our generation and has effectively wiped out progress in economic growth and job creation witnessed over the last decade.

Such a development increased the need to discuss about equity issues and problems in education, because the crisis threats public spending on education, training and lifelong learning but also the capacity of families to financially support the education of their children. Because the crisis threats more those who were already at a socio-economic disadvantage such as the low educated, the young, people belonging to minorities or immigrants, it is now more crucial than ever in the history of the European Union to work upon strategies and specific measures that will enhance the inclusiveness and fairness of our education systems.

At the EU policy level, the 2010 *Bruges Communiqué*, in the context of the Copenhagen process which lays out the basis for co-operation in VET among European countries, adopted a number of short-term deliverables for the period 2011-2014 at national and EU level, focusing on "at risk" groups in education and training and early school leavers. In particular, it suggested that the actions that should be taken must: be focused on preventive and remedial measures to maximise the contribution of VET in combating early leaving from education; consider specific measures aimed at raising the participation of low-skilled and other "at risk" groups in education and training, including by developing flexible pathways in continuing vocational education and using appropriate guidance and support services; make use of ICT to maximise access to training and to promote active learning, as well as to develop new methods in both work- and school-based VET, in order to facilitate the participation of "at risk" groups; and finally, use existing monitoring systems to support the participation of "at risk" groups in VET. Overall, the broader understanding of the objective of VET as was put forward in the 2010 *Bruges Communiqué* appears to be deeply based on an equity perspective:

> Initial and continuing VET share the dual objective of contributing to employability and economic growth, and responding to broader societal challenges, in particular promoting social cohesion. Both should offer young people, as well as adults, attractive and challenging career opportunities, and should appeal equally to women and men, to people with high potential and to those who, for whatever reason, face the risk of exclusion from the labour market.

The above should be contextualised within the wider strategic objective 3 "Promoting equity, social cohesion and active citizenship" put forward by the strategic framework for European cooperation in education and training ("ET 2020") which states that[6]:

> Education and training policy should enable all citizens, irrespective of their personal, social or economic circumstances, to acquire, update and develop over a lifetime both job-

[6] Council conclusions of 12 May 2009 on a strategic framework for European cooperation in education and training ("ET 2020"), 2009/C 119/02.

> specific skills and the key competences needed for their employability and to foster further learning, active citizenship and intercultural dialogue. Educational disadvantage should be addressed by providing high quality early childhood education and targeted support, and by promoting inclusive education. Education and training systems should aim to ensure that all learners — including those from disadvantaged backgrounds, those with special needs and migrants — complete their education, including, where appropriate, through second-chance education and the provision of more personalised learning. Education should promote intercultural competences, democratic values and respect for fundamental rights and the environment, as well as combat all forms of discrimination, equipping all young people to interact positively with their peers from diverse backgrounds.

One of the huge challenges for VET in attracting students who are "at risk" is how to convince them about the short to medium returns of following a VET programme in terms of their employability. This challenge should be framed within the wider conceptualisation of I-VET's fundamental mission in Europe, which is to help learners develop skills that are closely related to specific job demands and readily applicable to work, as opposed to the traditional conceptualisation of academic secondary education which is not directly linked to specific occupations and prepares students for tertiary education. However, especially in times of crisis, the short to medium returns of VET in terms of employability cannot be easily justified with hard evidence. As a matter of fact there is lack of undisputable evidence that VET increases the short to medium term employability of its graduates as compared to academic education graduates.

CEDEFOP exploring, in year 2009, the medium to long term trends in the composition of the labour market in Europe forecasted that, due to ageing population effects and higher participation rates in education, the number of younger workers (15-24 years of age) is going to decline from approximately 24 million in 2010 to less than 21 million in 2030, and in parallel the ageing workers (50-64 years of age) is expected to increase substantially, from 55 million in 2010 to almost 70 million in 2030 (+25 %) (CEDEFOP, 2009). In other words, the younger generation is likely to enter the labour market or start a career much later in age than the older generations. The above were projected a couple of years ago when the impact of the evolving economic crisis and its implications for the youth was not as clearly assessed as it can be today.

In many European countries the huge rise in unemployment rates particularly among those who left school early is likely to become a hard lesson to those among the student population now in compulsory education who consider leaving (or have to leave) the school at an early age to find a job instead of continuing with their studies. Unemployment rates[7] among those aged 15-24 with low education qualifications as high as 47,9% in Ireland, 49,9% in Spain, 35,6% in France or 65,4% in Slovakia are likely to have an impact in reducing early school leaving and possibly, at least in the short term, attract some of those who in more calm waters would "normally" leave school early into following a VET programme at upper secondary or post secondary education level. In some other countries where tertiary education graduates now face higher risks of unemployment as compared to secondary education graduates such as Greece, Romania, Hungary but also Turkey, the crisis is possible to have a reverse impact in the short term, that is for the tertiary education studies to become less attractive, perhaps in favour of vocational studies at post-compulsory, not tertiary level. In any case, in times of high unemployment rates among the youth the challenge to VET is to prove that it can live up to its role to develop a skilled workforce but also to develop fast in such ways as to be of more relevance to the labour market needs, specifically by identifying sectors where there exist, or will exist, shortages of skilled workforce.

[7] Source: LFS Eurostat, 4th quarter 2010.

Therefore, another major challenge to the VET systems in Europe at national and regional levels is how to identify and respond to changing labour market needs for skills and how to implement guidance services that would take into account the concerns of the youth which now sees that its chances of getting a (decently paid) job after formal schooling are becoming smaller and smaller. Despite some initial optimism that the economic crisis would be a matter of a couple of years to overcome, it is now becoming evident that for some European countries, such as Greece, Ireland and Portugal the future awaiting ahead is prolonged strict public finance policies and dramatic changes in the real economy and labour market regulations. There is little doubt that the "flexicurity" model is going to be much more of "flexi(bility)" and much less of "(se)curity" for them. One of the important implications for VET, particularly I-VET, is that it has to provide skills for a future workforce that is likely to be called to work in a rapidly changing labour market both in terms of regulatory frameworks and demands.

Offering training closely tied to the needs of specific jobs, particularly those traditionally in demand in the regional and local labour markets, runs the risk for VET graduates to face huge difficulties in case they have to do something else for a living, or change career paths during later work-life phases, something which seems highly likely and consistent to the "flexicurity" model of Europe[8]. The need for transversal skills and lifelong learning is becoming more and more relevant and VET has to prove that not only addresses the demand for specific job-related training but also that combines it with the development of "learning to learn" competencies that will help VET graduates effectively adapt to changes in the labour markets. Easier said than done. As a matter of fact, VET is faced with a contradicting, at times, political rhetoric about its role as part of the formal education system. On the one hand the terminology used about the needs of the labour market is all about "skills", with the characteristic example of the Commission's "*Agenda for new skills and jobs: A European contribution towards full employment*"[9], and on the other hand there is the dominant discourse on lifelong learning which maintains that it is not just skills that we need but a much wider construct, "competences" in the shape of not only skills but also of knowledge and attitudes appropriate to the context which "…are essential in a knowledge society and guarantee more flexibility in the labour force, allowing it to adapt more quickly to constant changes in an increasingly interconnected world"[10].

All the above should be also examined under the light of trends in participation in I-VET and occupationally oriented tertiary education as compared to academic education studies. Between 2000 and 2008 in EU(27), the share of boys in upper secondary vocational education as % of the total male student population at ISCED level 3 dropped from 58,1% to 55,7% while this of girls from 52,2% to 44,7%. Similarly, between 2000 and 2008 in EU(27), the share of male students in tertiary education programmes with occupational orientation as % of the total male student population at ISCED level 5 dropped from 14,2% to 12,7% while this of females from 15,6% to 13,8%[11].

According to CEDEFOP (2009, p. 38), demographic developments are likely to cause the total number of students in I-VET (either pre-vocational or vocational) to decline from 14.2 million students in 2005 to 11.9 million in 2030. In absolute terms, the decrease is strongest for students enrolling in I-VET at

[8] See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions of 27 June 2007, *Towards Common Principles of Flexicurity: More and better jobs through flexibility and security*, COM(2007) 359 final.

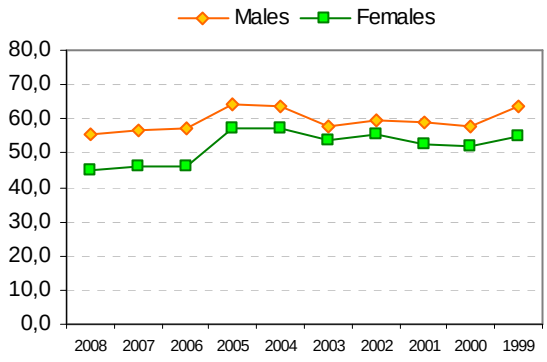
[9] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *An Agenda for new skills and jobs: A European contribution towards full employment*, Strasbourg, 23.11.2010, COM(2010) 682 final.

[10] Recommendation 2006/962/EC of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning, *Official Journal* L 394 of 30.12.2006.

[11] Source: Eurostat.

ISCED 3 level: between 2005 and 2030, the number of students in this level of VET is projected to decline by almost 2 million (-17.6 %).

Chart 1: EU(27) trends in the percentage distribution of the male and female student population in upper secondary vocational education as percentage of all students at ISCED level 3 (Source: Eurostat)



These findings indicate that during the last decade vocational/occupational education was loosing in its attractiveness to the youth as compared to academic education; during the same period, there was documented a persistent gender gap in the share of male and female students choosing vocational studies which has slightly widened in the past few years. The girls are clearly less attracted to such studies particularly at secondary education level.

Therefore, another major challenge for I-VET systems in Europe, which is not only educationally but also socially, culturally and economically relevant, is to attract more girls in vocational orientation studies.

If CEDEFOP's projections prove to be valid, in the next decade there are going to be huge pressures on the existing I-VET systems. With 2 million students less, many professionals and administrators in I-VET will find it harder and harder to keep running their schools and training programmes. Changes also in the structure of occupations and the associated changes in the labour force demands are likely to challenge VET systems across Europe. CEDEFOP's projected sectoral changes during the next decade could have a significant impact to occupational skills needed in the future, something which might imply a risk of job polarization and exclusion for the low educated. According to CEDEFOP (2010),

> structural and other changes will, if these trends continue, create many jobs at higher levels, but also a considerable number of jobs at the lower end of the job spectrum, with low pay and poor terms and conditions. This raises concerns about job quality and mismatch, and related problems of social equality and exclusion for many European citizens and migrants, and will pose challenges for policy-makers concerned with issues of equity and social cohesion (p. 57).

The challenge for VET at national and regional levels is to keep a close eye on the trends in the labour markets as well as on trends regarding the developments in dynamic fields of economy on demographics and migration so as to respond in efficient, effective and inclusive ways. In parallel it has to keep updating and modernising not only the education and training it offers in order to be in-line with changes in the fields of technology and methods of production but also the guidance systems that are available to current and prospective VET students.

3. The economic and social context and gender inequalities

Reviewing equity issues in education in OECD countries several years ago, David Istance (1997, p. 19) argued that the economic and social context is essential for discussing equity, access and participation in education and training and that its analysis will help us define challenges and problems that education needs to address. In this report we also believe that the economic and social context is a good starting point to discuss about equity issues in education.

The current economic crisis has certainly created a rather pessimistic climate about the economic prospects of several European countries and the economically weaker among the European populations are the first to feel its effects. Fears about of increased inequalities in income are certainly justified but it is perhaps better to examine how Europe faired in the income inequality domain not in times of economic crisis but in times of economic expansion, that is between 2000 and 2008.

The 00s, or at least the most part of the last decade, was an era of economic growth in Europe and particularly in the FARE countries. In 2008, as compared to year 2000, Germany's GDP was 20% higher, Poland's almost doubled (95,5%) while this of Spain's, Greece's and Turkey's was over 70% higher[12]. Did this huge economic expansion lead to less inequality in income distribution? According to the data available by Eurostat this was not the case.

Back in 2000 in Germany the wealthiest 20% of the population had 3,5 times more income than the poorest 20%[13]. In 2008 in Germany the wealthiest quintile had 4,8 times more income. In Spain and Greece the wealthiest quintile in 2008 had more or less the same income difference as in year 2000 (5,4 and 5,9 times respectively). In Poland, this difference increased from 4,7 times in 2000 to 5,1 times in 2008. As for Turkey, the latest data available show that in 2002 the top 20% had almost 11 times more income than the bottom 20%. Furthermore, in Germany in 2008, as compared to 2000, there was more than 50% increase in the percentage of the total population at risk of poverty[14] (15,2% in 2008 as compared to 10% in 2000), which translates into more than 11 million people at risk of poverty in this country. In Spain, Greece and Poland the share of the population at risk of poverty remained more or less the same or slightly increased in 2008 as compared to 2000 (19,6%, 20,1% and 16,9% respectively for 2008)[15]. In 2010 EU almost 84 million people live under the poverty line, among them around 19 million children, and it is no wonder why this year was declared by the EU and its Members as "the European Year for combating poverty and social exclusion"[16].

To get an idea about for how many how difficult the circumstances of their life may be, in year 2008 14% of the population in Germany was living in a dwelling with a leaking roof, damp walls, floors or foundation, or rot in window frames or floor! In Greece, such housing problems were faced by 18,6%

[12] Source: Eurostat.

[13] Here we refer to the S80/S20 ratio, which compares the total equivalised income received by the top income quintile (20% of the population with the highest equivalised income) to that received by the bottom income quintile (20% of the population with the lowest equivalised income). Source: Eurostat.

[14] Individuals living in households where the equivalised income is below the threshold of 60% of the national equivalised median income.

[15] Source: SILC Eurostat.

[16] See http://www.2010againstpoverty.eu/about/?langid=en.

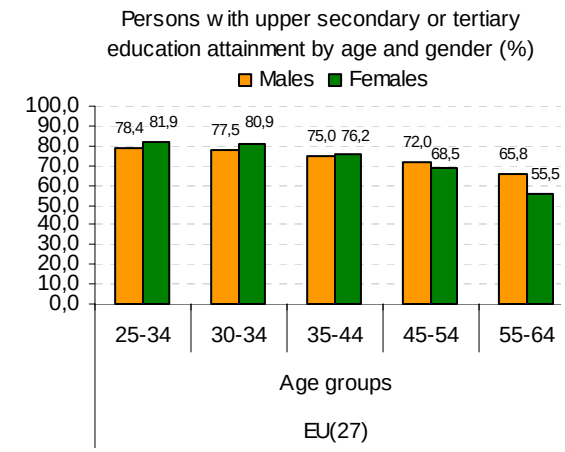
of the population, in Spain by 15,5% and in Poland by 22,8%[17]. *Given the above, it is not difficult to imagine that many of today's schoolchildren are at a disadvantaged position, economically and socially, when it comes to their education.*

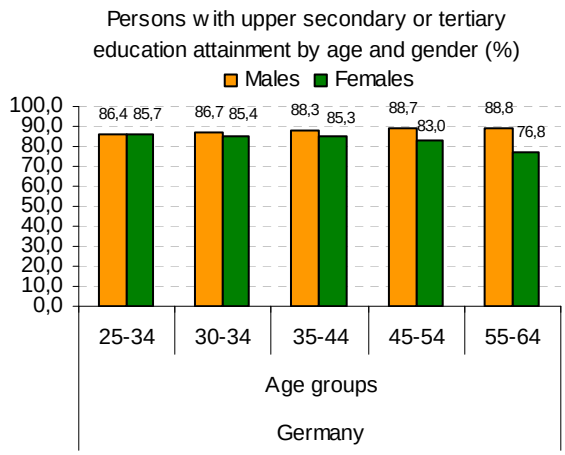
However, before going into any further discussion about equity issues in today's education, it is useful to turn our focus on equity issues among the two genders as these are manifested in the education attainment, employment and LLL participation of the adult population.

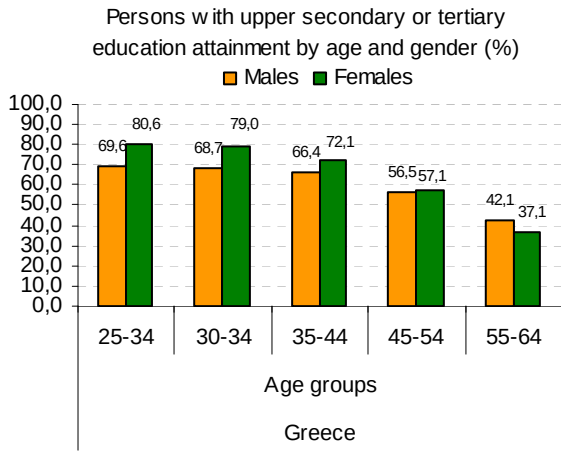
3.1 Gender issues in the education attainment of the adult population

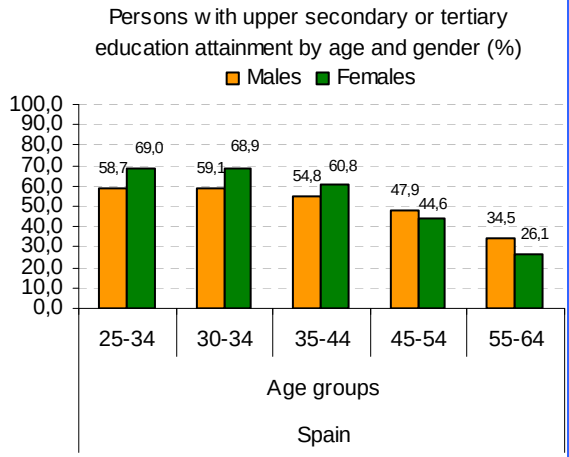
Not long ago in many EU countries women were in a disadvantaged position regarding access to formal education at upper secondary and tertiary education level. This was not the case, however, for Poland were no considerable gender gaps are evident within older age groups, something which possibly reflects its socialist past. In Germany the gap between the share of men with at least upper secondary education qualifications and this of women is slightly widening with older age and is clearly an issue among those aged 55-64 in Germany's population (see charts in the box below).

Persons with upper secondary or tertiary education attainment by age and sex (%), year 2009 (Source: Eurostat)

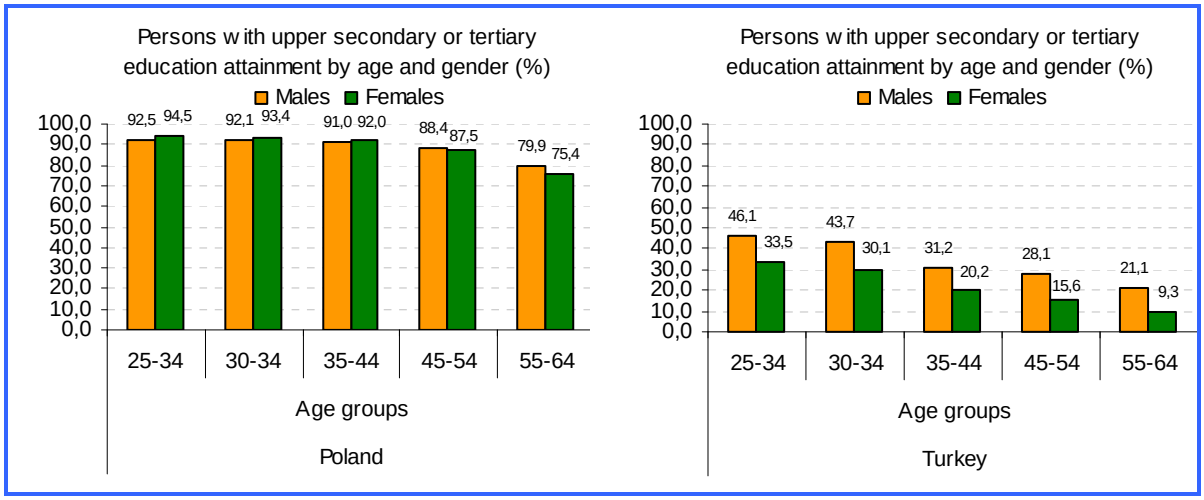








[17] Source: SILC Eurostat.



During the '80s in Spain and in Greece women managed to overcome men in their share of individuals who have completed at least upper secondary education. Since then, the younger generations of women are beating men in medium to high education attainment with a lead of around 10%.

Overall, the data presented above show that from a historic perspective the FARE countries are very different regarding the expansion of participation in upper secondary and tertiary education. In Germany and in Poland high participation rates in upper secondary and tertiary education among both men and women were already achieved during the '70s and have been stabilized at very high levels ever since. In Greece and to a lesser degree in Spain there was achieved a large expansion during the '80s from which it was the women that benefited most; this trend is now deeply established. Both countries, however, and particularly Spain has a long way to go to reach the EU(27) average among men. In Turkey the gradual rise in the educational attainment of the population over the last four decades also led to a narrowing of the gap between the share of men and women having graduated from at least upper secondary education but this is still a big issue even among the younger generation[18].

Turkey is clearly at a different "starting point" when it comes to education attainment of its adult population and this is something that has to be taken into account when focusing on participation in education today and equity issues in education.

In order to explore and develop deeper understanding of equity issues in education and particularly VET from a gender perspective, it is also the place of adult men and women in employment that can offer us insights about how the wider socio-cultural and economic dynamics may contribute to current realities in and out of schools.

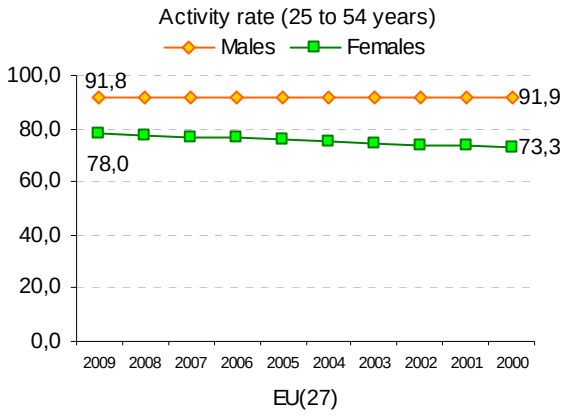
3.1.1 Inequalities between men and women in employment and unemployment

An indicator reflecting differentiations within and across the FARE countries regarding the place of men and women not only in paid work but also in the society at large offers the activity rate. This is

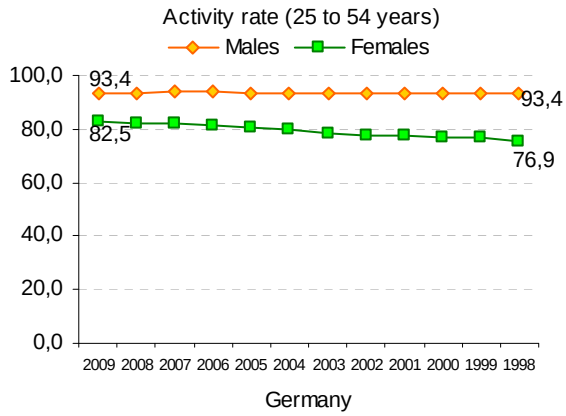
[18] A particular issue is also marriage before the age of 18. According to a recent Unicef report, in Turkey 14% of women aged 20-24 get married or in union before they were 18 years old. Among women belonging to the poorest 20% of the population this figure reaches the level of 30% (Unicef, 2010, p.83).

the rate of people in the workforce (employed or unemployed) within a country's population between the ages 15 to 64. Here we chose to use the activity rate of men and women in the population aged 25 to 54 years (see charts in the box below). A common finding across the FARE countries is that women are lagging behind men in the workforce by at least 10 percentage points. During the last decade mainly in Greece and Spain, but also in Germany, there was a steady increase in the share of the women population in the workforce while the activity rate of men remained stable. This finding reflects, among others, wider societal shifts that have led towards the greater integration of women in the economy and work, supported, as we have already seen, by their increased and longer participation in education.

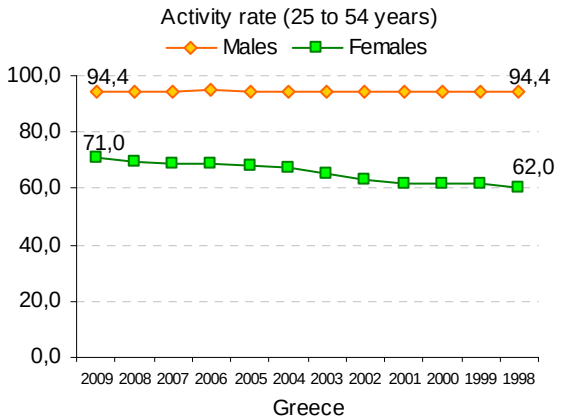
Trends in the activity rate of the male and female population aged 25 to 54 years (Source: Eurostat)



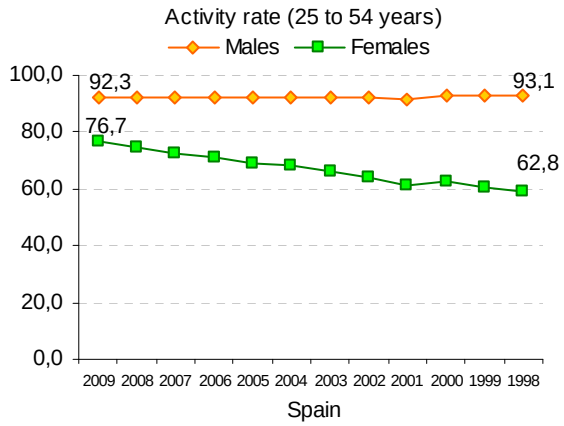
EU(27)



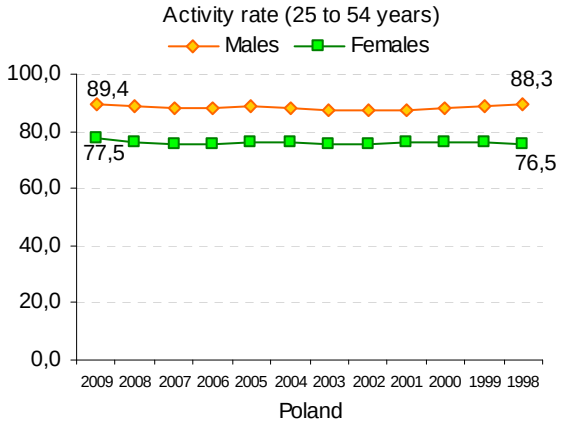
Germany



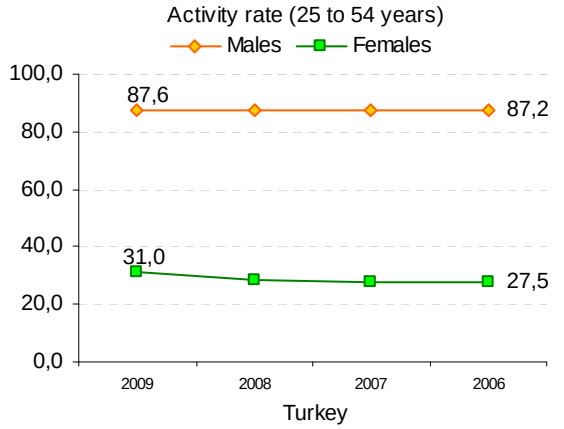
Greece



Spain



Poland



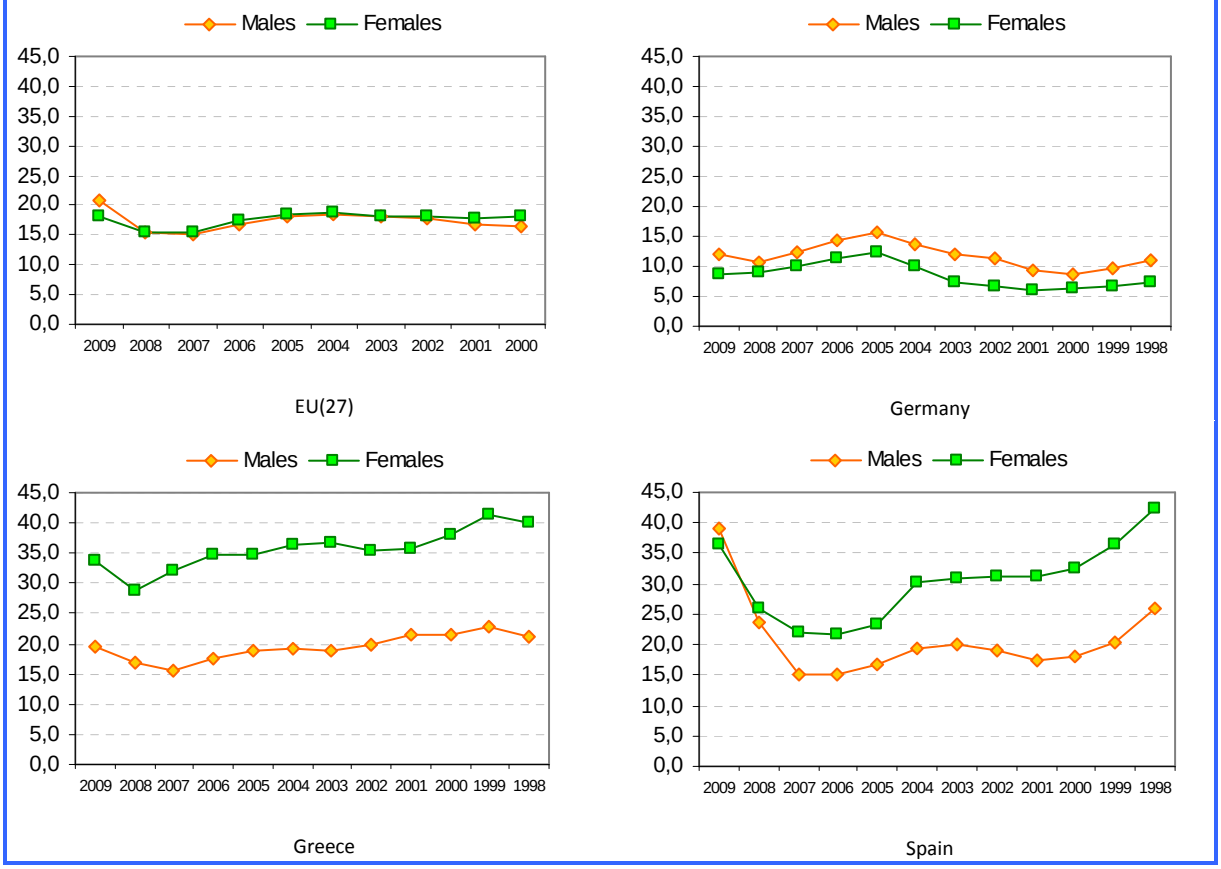
Turkey

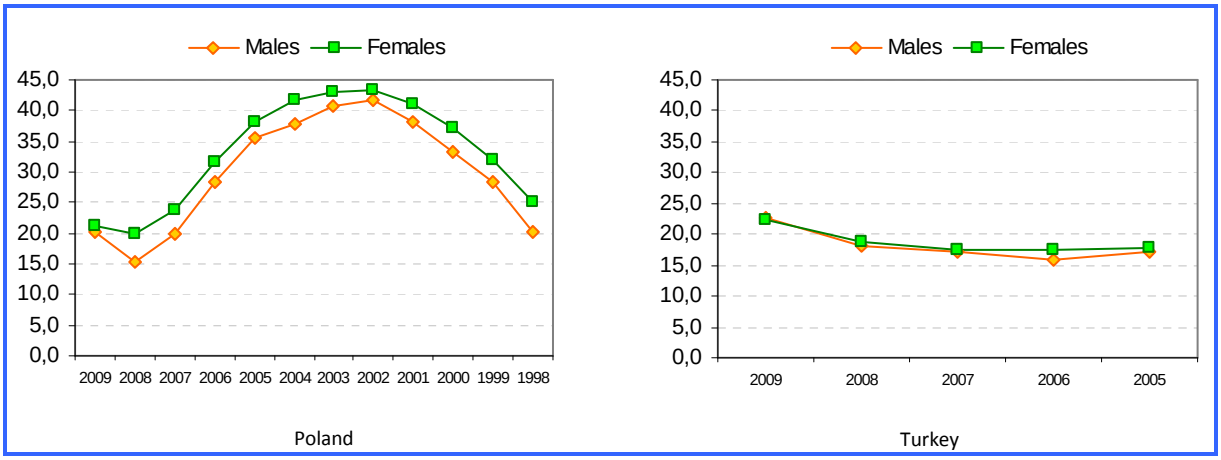
This trend is not observed in Poland and Turkey where the gender gap in the economically active population rates remained stable. It is particularly in Turkey where this gap remains very wide reflecting persistent socio-cultural patterns regarding the role of men and women in the family, parenthood and work life as well as the low level of educational attainment of women, particularly of those aged 35 and over. On the other side, in Poland the activity rate of women is higher than this of Greece and Spain, something that is possibly affected by the consistently high education attainment levels of women over the last four decades in Poland.

In the FARE countries there also appears to be a huge differentiation regarding trends of both the level of unemployment and the gender balance in unemployment among young people under 25 years of age (see charts in the box below).

Comparatively, the most gender-balanced countries in the rates of unemployment of the younger generation are Germany, Poland and Turkey. The crucial difference is that in Germany the unemployment rate among the young is more than half of this in Poland and Turkey and much lower than this of Greece and Spain. Therefore, *the overall situation of the younger generation in Germany regarding unemployment, both in terms of gender balance and total rate, is much better than in any other FARE country*.

Trends in the percentage distribution of the male and female workforce population under the age 25 in unemployment (Source: Eurostat)

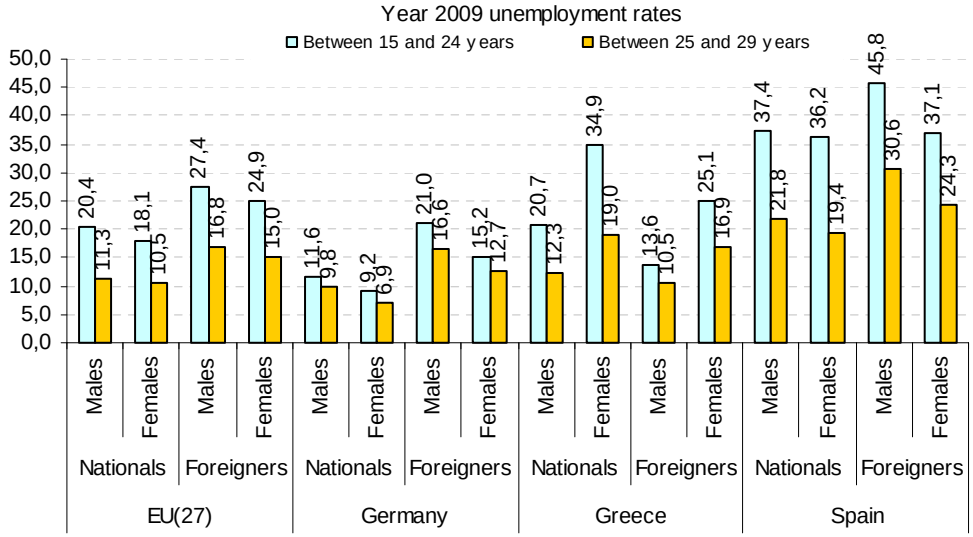




Greece and Spain present two converging cases regarding the overall unemployment rate of the younger generation which is among the highest in Europe and in parallel they diverge greatly regarding gender balance in unemployment. While in Spain the steep rise in unemployment since 2007 led, in parallel, to the elimination of the gender gap in unemployment rates in favour of young women, in Greece the long existing gap in favour of young men was largely maintained.

Unemployment rates are generally lower among those between 25-29 years of age as compared to the younger section of the workforce (see chart below). However, gender gaps do remain. They also appear to be more intense for some groups when also taking into account the nationality of the unemployed.

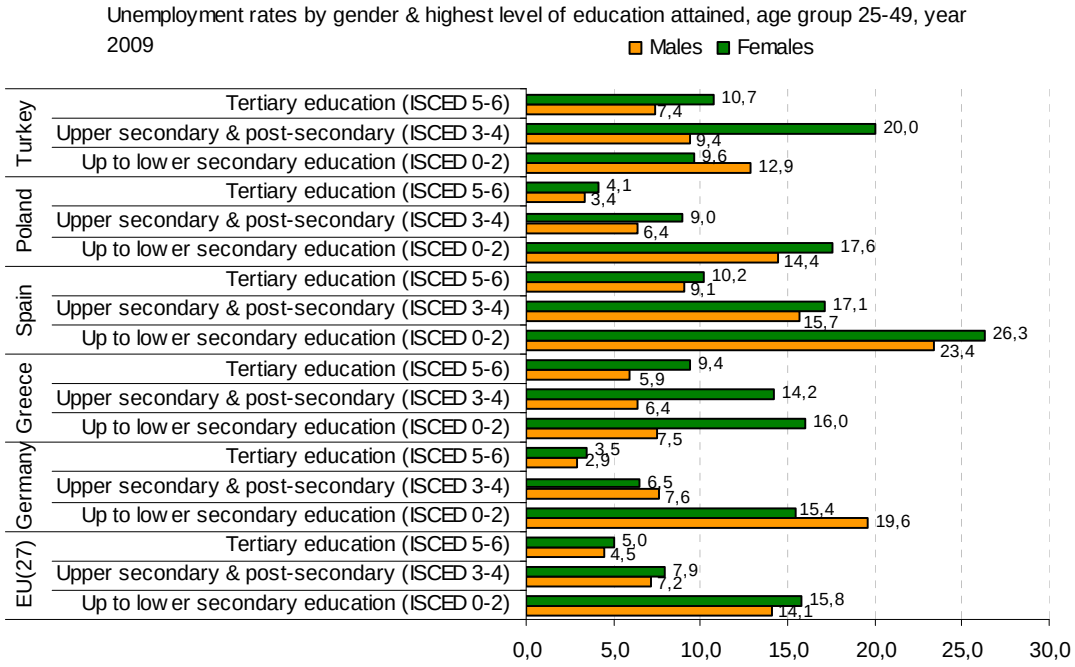
Chart 2: The year 2009 unemployment rates among the younger generation of the workforce by nationality and gender (source: Eurostat)



In Germany the group that is suffering the highest rates of unemployment is this of males of foreign origin aged between 15 and 24 years. This is the same for Spain but on a much greater scale. In this country more than 4 to 10 young individuals of foreign origin aged 15-24 in the workforce are unemployed. On the other side females of foreign origin in Spain do not face higher unemployment rates than this of their peers of Spanish nationality. Comparatively, the group with the lowest unemployment rate among the younger generation in Spain's workforce is women of Spanish nationality aged 25-29. In Greece the situation is rather different. By far, the most vulnerable group in the younger workforce is Greek women between 15-24, followed by women of the same age but of

foreign origin. In Greece's younger workforce the group that is faced with the lowest unemployment rate is males of foreign origin aged 25-29.

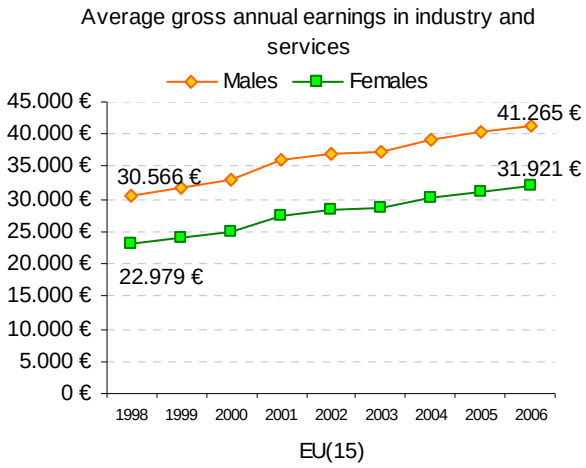
Chart 3: The year 2009 unemployment rates among those aged 25-54 by gender and highest level of education attained (source: Eurostat)

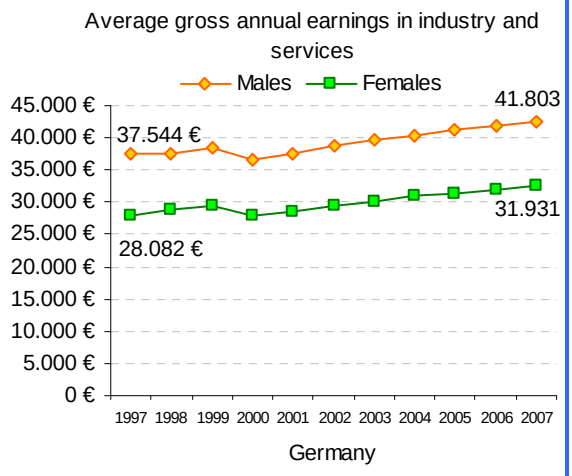


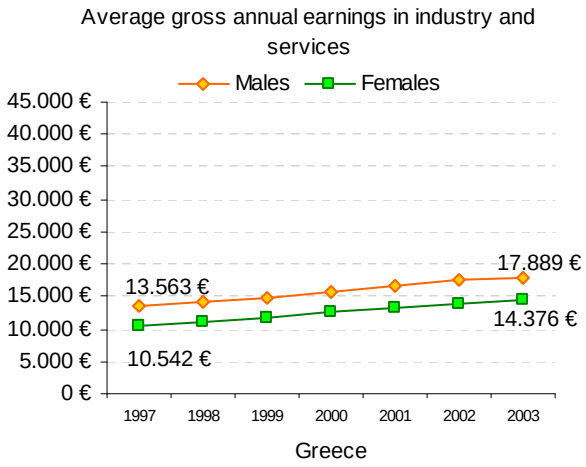
The education level attained is related to the unemployment rates of both genders but this relationship is not following the same pattern across the FARE countries. Tertiary education studies mean much less unemployment rate for both men and women as compared to those with lower education qualifications of their own or the other gender. This is not however the case with Turkey where the unemployment rate of women with tertiary education qualifications is very close to this of men with upper-secondary or post secondary but not tertiary education qualifications (ISCED levels 3-4) and women with up to lower secondary education qualifications. *Apparently in Turkey higher education does not lower the risk of unemployment for women, as is the case with men*. In Poland, Greece and Spain higher education qualifications do pay back women with lower unemployment risk but not as well as they do with men. In all three countries the unemployment rate of women is higher than this of men with the same level of education qualifications. In Germany the situation is somewhat different. Among those with no tertiary education qualifications it is men that suffer most by unemployment, but among those with tertiary education qualifications it is women that face slightly higher unemployment rates than men.

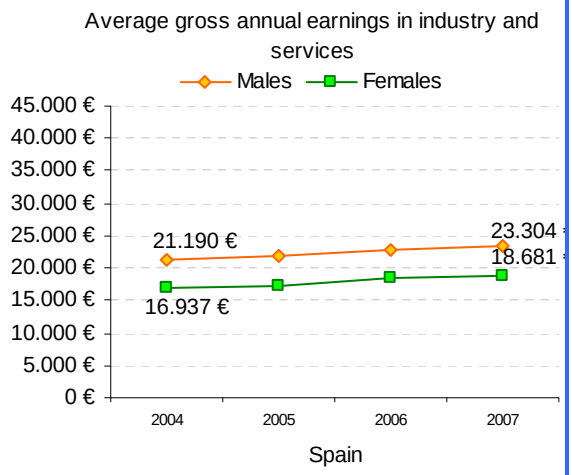
Gender differences in employment in favour of men also exist in annual earnings (see charts in the box below). In Germany, for example, the 2007's average gross annual earnings in industry and services for women was more than 6.000€ less than the earnings of men more than a decade earlier!

Trends in the average gross annual earnings in industry and services of full-time employees in enterprises with 10 or more employees, by gender (Source: Eurostat)









According to the most up-to-date Eurostat data, in the industry and services sectors women as compared to men earn on average 23,4% less in Germany (reference year 2007), 19,6% less in Greece (2003), 19,8% less in Spain (2007) and 17,3% less in Poland (2004). What is also characteristic is that such differences in earnings remained relatively stable over the years, indicating that they are persistent. In this respect all FARE countries present an almost identical picture.

Gender differences are also evident in the distribution of employment of each gender across major occupational categories[19] (see charts in the box below).

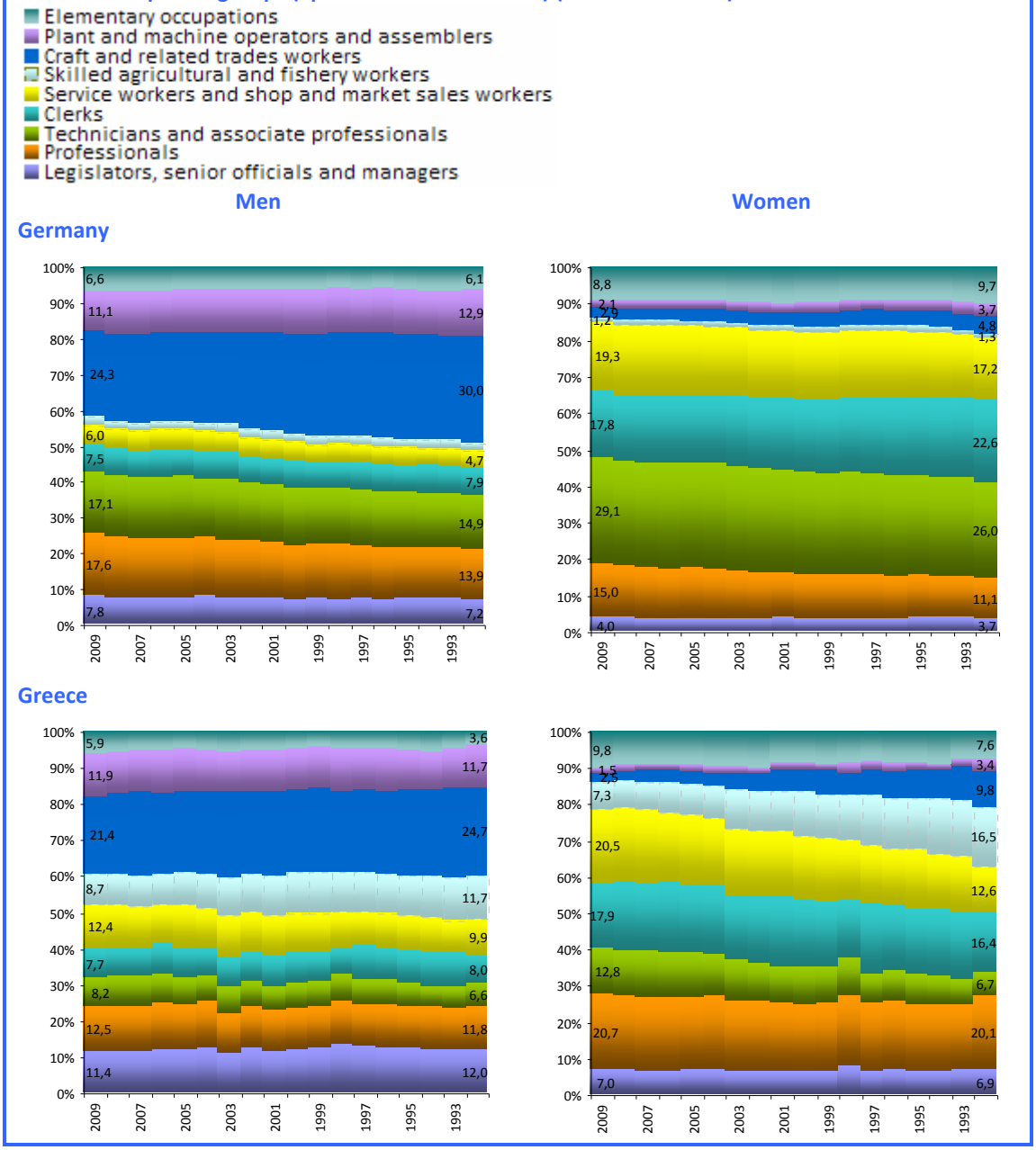
In all FARE countries there are proportionally more men than women among their respective workforce populations aged 25 to 49 years employed as *legislators, senior officials and managers*. Despite the fact that in the adult population women tend to be as well educated or even higher educated than men (apart from Turkey), high profile and high power positions are dominated by men and this have not changed during the last decades.

[19] Based on the ISCO-88 major groups, excluding the armed forces because of lack of data for some of the FARE countries.

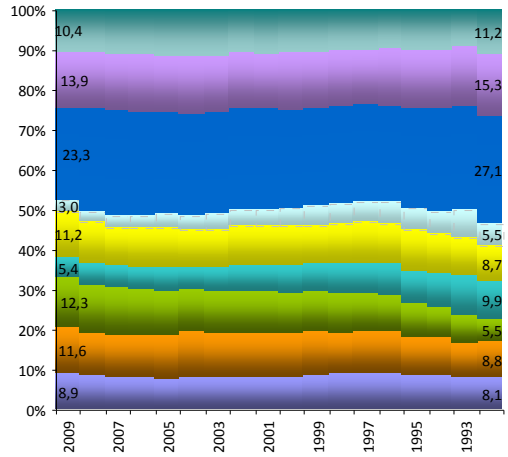
A far greater gap exists in the share of men and women within their workforce population employed as *craft and related trades workers*, and *plant and machine operators and assemblers*. These two blue collar occupational groups are apparently *the* male occupations. Combined, today they represent around one third of the men workforce aged 25 to 49 years in every FARE country. In contrast, less than 1 in 10 women in the workforce today belong to these occupational groups. As is indicated by the data available, less and less women are oriented towards these two occupational groups.

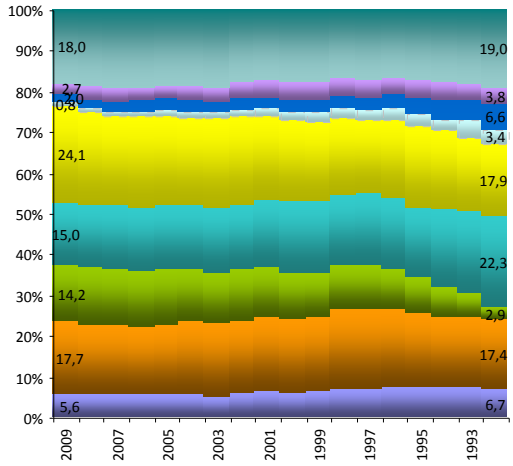
On the other hand, the percentage share of women working as *clerks*, *service workers and shop and market sales workers* within the women's workforce is from around 16 to 24 percentage units higher than this of men across the FARE countries except Turkey. In Germany, Greece and Spain almost 4 out of 10 women in the workforce are employed as clerks or in shops and sales, while in Poland around 1 out of 5.

Trends in the percentage distribution of men's and women's workforce aged 25 to 49 years across ISCO-88 occupation groups (apart from armed forces) (Source: Eurostat)

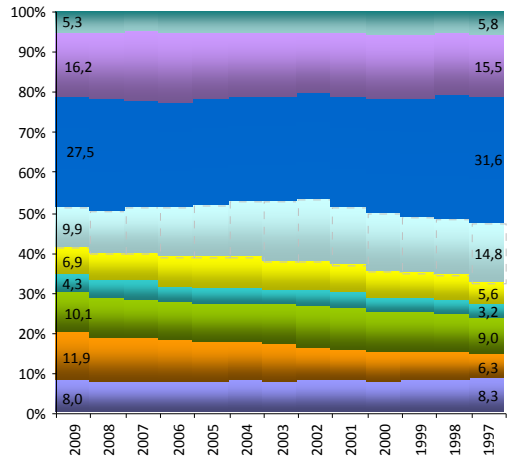


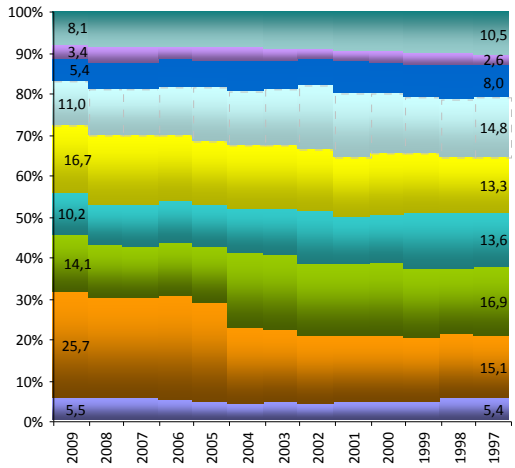
Spain



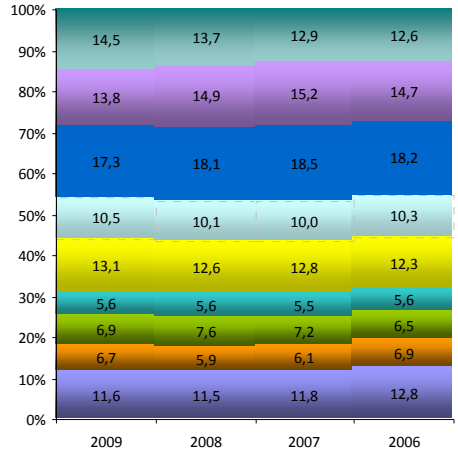


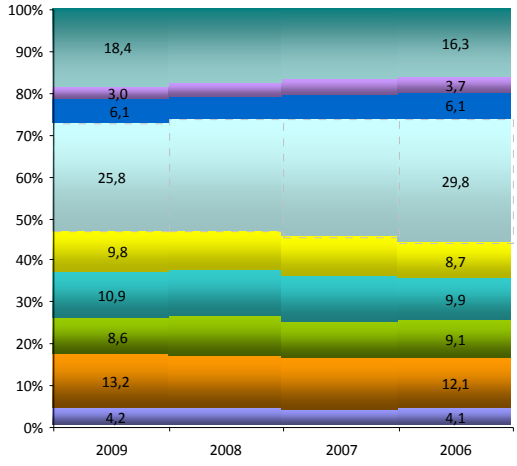
Poland





Turkey





In all FARE countries women also proportionally overcome men in the occupational groups of *professionals* and *technicians and associate professionals*. It is particularly in Poland where the share of women in the women's workforce who are employed in one of these two groups overcomes the respective share of men by nearly 18 percentage units, a gap that was already established several years ago. In all other countries this proportional gap is today above 8 percentage units in favor of women.

In Germany, within the women's workforce the share of professionals and technicians is much larger than this of clerks and service workers (44% and 37,1% respectively) and this is also true for the women's workforce in Poland (39,7% and 26,9% respectively). In Spain and Greece the shares are larger for women working as clerks and service workers as compared to professionals and technicians but the gap is not particularly wide. In Turkey, on the other hand, the largest share of women in the workforce (44,3%) is employed either as skilled agricultural and fishery workers or in elementary occupations. The respective share of men is 25%. This gap possibly reflects imbalances in the education attainment of men and women in Turkey that we have already highlighted earlier.

3.1.2 Gender inequalities in adult participation in LLL

Regarding participation in LLL among the adult population the Adult Education Survey data (reference year 2007) show that it is particularly in Germany where clearly more men are proportionally participating in both formal and non-formal LLL activities (see Chart 4 & Chart 5). Comparatively, Greece is the most gender-balanced country regarding gender participation in LLL. However Greece is also among the group of EU countries with the lowest level of participation in LLL. In Greece access in formal education at tertiary education level is particularly difficult for adults. Adults with no university qualifications can only be enrolled to the Hellenic Open University. This partly explains why there is such a low level of adult participation in formal education in Greece but also why there is gender balance in participation.

Chart 4: Share of females and males aged 25-64 in participation in formal education and training (last 12 months, reference year 2007), by country (Source: Eurostat/AES 2007)

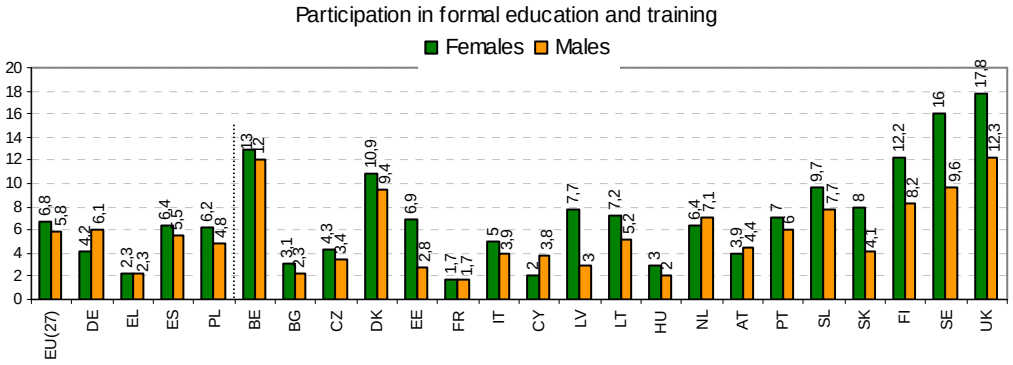
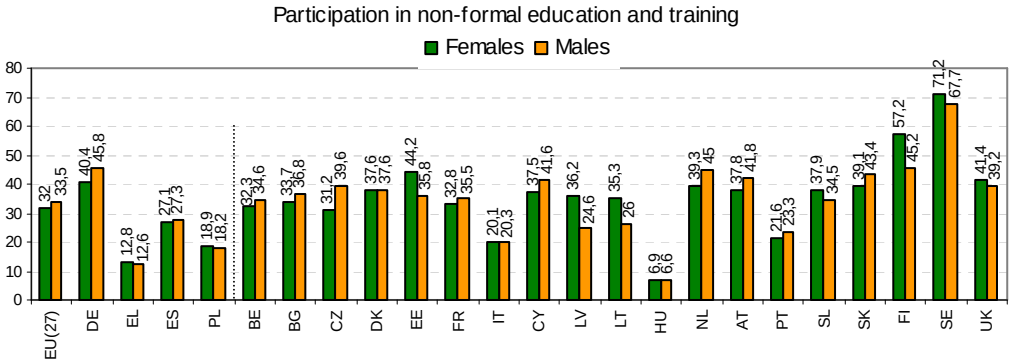


Chart 5: Share of females and males aged 25-64 in participation in non-formal education and training (last 12 months, reference year 2007), by country (Source: Eurostat/AES 2007)



On the other side, in both Spain and Poland there is gender balance in participation in non-formal education and training but women slightly overcome men in formal E&T.

More recent data provided by the Labour Force Survey, which uses a different approach to the measurement of participation in E&T than AES[20], show that among those aged 25-54 in employment it is clearly women and overcome men in all FARE countries, even in Turkey. This finding is in contrast to the EU(27) average where proportionally more men are engaged in LLL activities than women.

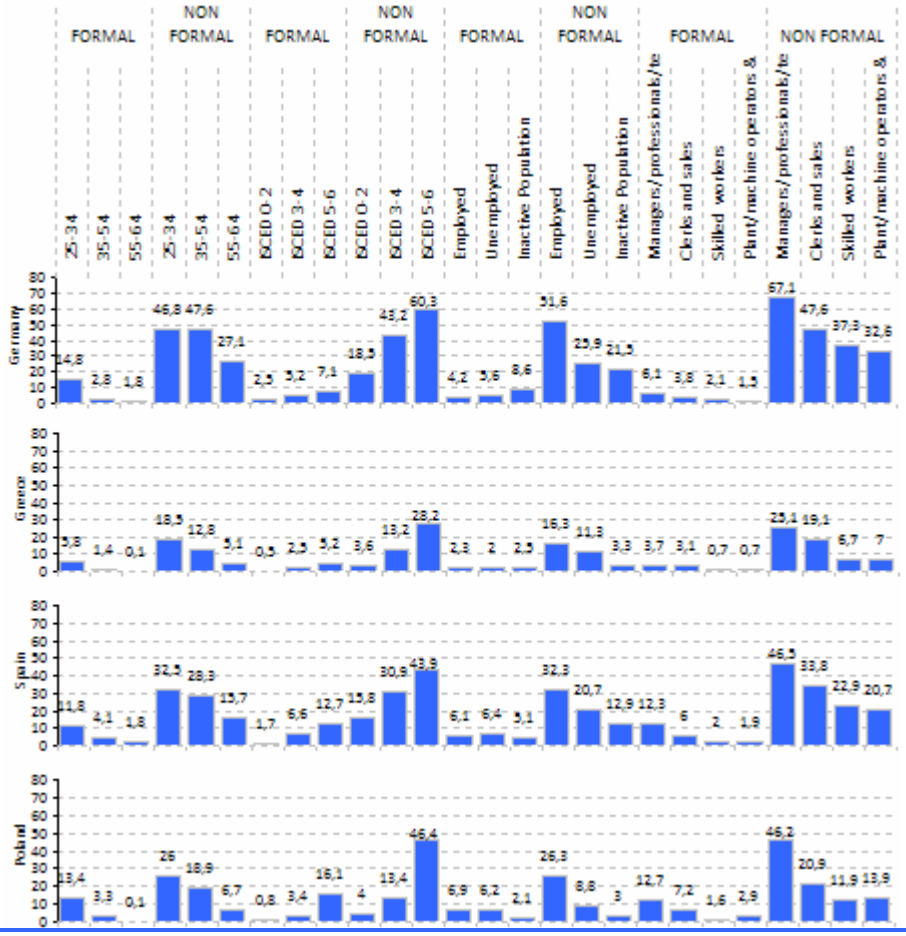
Trends in the share of men and women aged 25-54 in employment who participate in E&T (Source: Eurostat/LFS)

When it comes to inequalities in participation in LLL, the largest differences appear in non-formal E&T, which is the most popular form of LLL. In all FARE countries (apart from Turkey where there are no data available by AES 2007) the most disadvantaged groups are those aged 55-64, those with low prior education attainment, the unemployed and the economically inactive population, and the blue collar workers, that is the groups that are mostly in need for raising their skills levels (see charts in the box below).

[20] LFS's reference period for the participation in education and training activities is the four weeks prior to the interview. AES's reference period for the participation in education and training activities is the twelve months prior to the interview. Therefore AES's results show higher participation rates in E&T than LFS's.

Predictably enough, those who are more active in LLL are the groups that are already in a privileged position, that is the younger and the highly educated, those already in employment, and the managers/professionals/technicians. These findings, at least partly, indicate that more formal education during school-age years generates further participation in LLL during the adulthood and that limited participation in formal education is likely to lead to less involvement in LLL later on in the life of individuals.

Participation in formal and non formal education and training by age, education attainment, workforce participation and occupational category, reference year 2007 (Source: Eurostat/AES 2007)



3.2 Concluding remarks

The main issues that were raised in this chapter highlighted some major challenges regarding equity in education and training:

- First, one major challenge is that existing and *persisting inequalities in income distribution among the population may create the ground for some of the school-age children to face barriers in achieving their highest academic potential as a result of their families' limited capacity to pay for education* (for example for extra, out-of-school tuition, learning materials, school/university fees where this is necessary, optional for-fee extracurricular activities etc), and for other family activities of potentially high educational value such as travels, visits to cultural places etc, and to do so consistently for a prolonged period of time.

- Second, looking at the figures regarding the education attainment of women as compared to men among the adult population it is evident that, generally speaking, *schools have become places where women can really perform as good as men and even surpass them* as is the case in Spain and Greece. However, when it comes to employment and participation in the labour force things do change considerably for them. *Women are facing more risk of unemployment as compared to men of the same level of education and they a likely to earn less than men. Furthermore, they are less likely to reach to top level, high status and high power, occupations, that is to become top level managers or legislators.*

4. Equity issues in pre-primary and compulsory education

In this chapter we turn from wider socio-economic trends with underlying inequalities produced and reproduced regarding particularly the reproduction of poverty that may have a huge impact on the educational prospects of the school-age children, the reproduction of inequalities in participation in LLL, as we as the reproduction of inequalities between men and women in employment, to inequalities that can be observed in the distribution of the pubic good of pre-compulsory and compulsory education.

According to the Commission's Communication on efficiency and equity in education and training, "…participation in high-quality pre-primary education has long-lasting benefits in terms of achievement and socialisation during individuals' schooling and careers because it facilitates later learning"[21]. Based on this the EU Member States are called to "…invest more in pre-primary education as an effective means to establish the basis for further learning, preventing school drop-out, increasing equity of outcomes and overall skill levels" (o.p.).

Participation rates in pre-primary education largely depend on the provision of this good that is available to families, particularly publicly funded nurseries or kindergartens. The participation rates of 4 year olds in pre-primary education presented on the left chart below indicate that in three of the FARE countries, Greece, Poland and particularly Turkey education provision at pre-primary level is rather limited. However, participation in pre-primary education among the 5 year old children, as compared to 4 year old children, increases considerably in the case of Greece (it is above the EU average) (see chart above on the right).

Chart 6: Participation of children aged 4 in education (ISCED level 0) as percent of the population aged 4, reference year 2008 (Source: Eurostat)

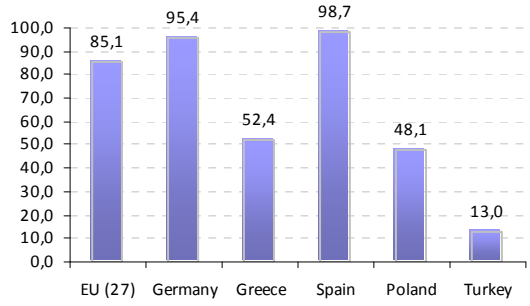
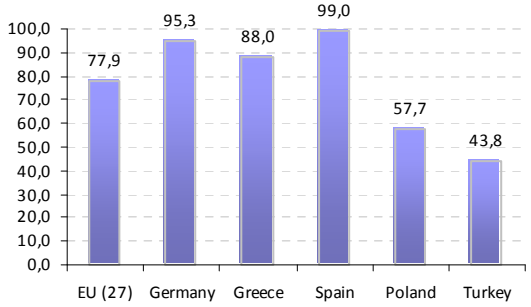


Chart 7: Participation of children aged 5 in education (ISCED level 0) as percent of the population aged 5, reference year 2008 (Source: Eurostat)

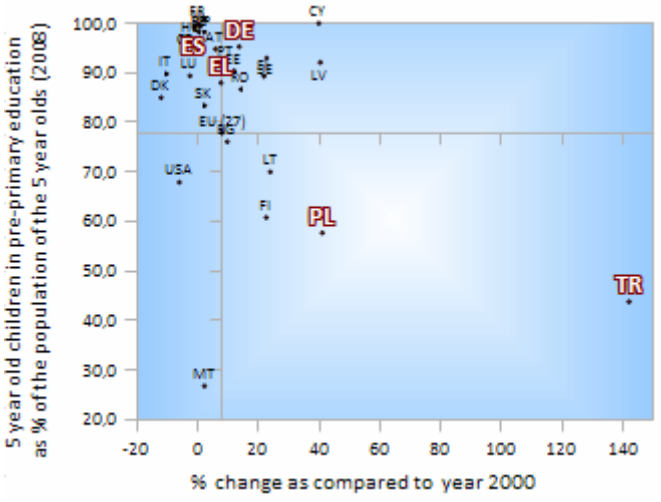


Overall, the data available from Eurostat indicate that access to pre-primary education remains an issue that needs to be addressed in Poland and particularly in Turkey because, among others, it may contribute to the establishment of early education disadvantages which emerge from factors such as the socio-economic situation of parents and cultural patterns in parenting (see Leseman, 2009).

[21] Communication from the Commission to the Council and to the European Parliament (2006). *Efficiency and equity in european education and training systems*. Brussels, 8.9.2006, COM(2006) 481 final, p.5.

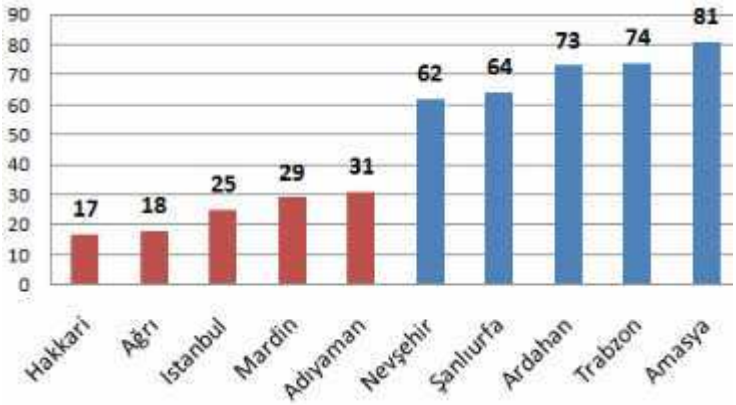
However, it has to be pointed out that since year 2000 both in Poland and particularly in Turkey there has been huge progress in widening the rate of participation of 5 year olds in pre-primary education (see chart below).

Chart 8: Percentage of participation of 5 year olds in pre-primary education in 2008 by growth in participation since year 2000 (Source: Eurostat)



On the other side, the data available from Unicef regarding Turkey show that the widening of participation in pre-primary education is rather uneven between different regions, something which is likely to indicate regional inequalities in education provision[22].

Chart 9: Enrolment of children aged 4-5 in pre-primary education, 5 lowest and 5 highest provinces in Turkey, academic year 2009-10 (Source: Unicef)



According to Unicef's branch in Turkey[23],

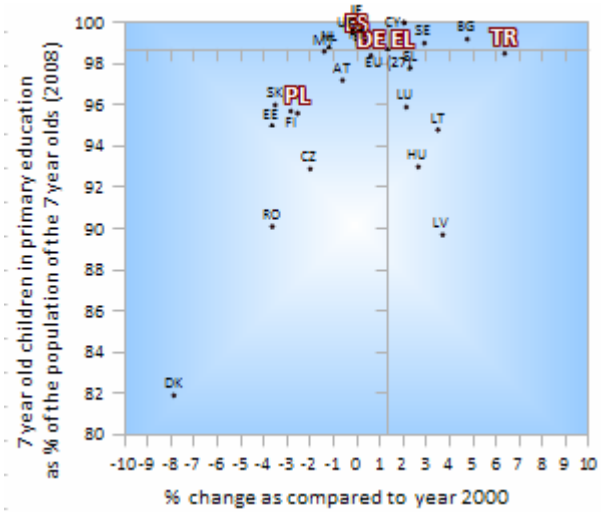
> currently, the lowest enrolment rates in pre-primary education are observed in some Southeastern and Eastern Anatolian provinces, and in major cities where observation suggests participation in pre-primary education may be closely related to social stratification. Thus there is a risk that pre-primary education serves to reinforce the disadvantages of the most excluded social groups. However, the pattern is complex – at least for the time being– and participation in pre-primary education is also strong in several provinces of varying socioeconomic character which have been given priority and/or where public officials have been very active. Meanwhile, girls are slightly less

[22] See Unicef Turkey at: http://www.unicef.org.tr/en/content/detail/55/early-childhood-development-school-readiness-and-pre-primary-education.html.
[23] Ibid.

likely to attend pre-primary education than boys. For 2009-10, the Ministry of National Education has calculated enrolment ratios of 27.34% for boys and 26.48% for girls in the 3-5 age group. For the 4-5 age group, the ratios are 39.17% and 37.91% respectively.

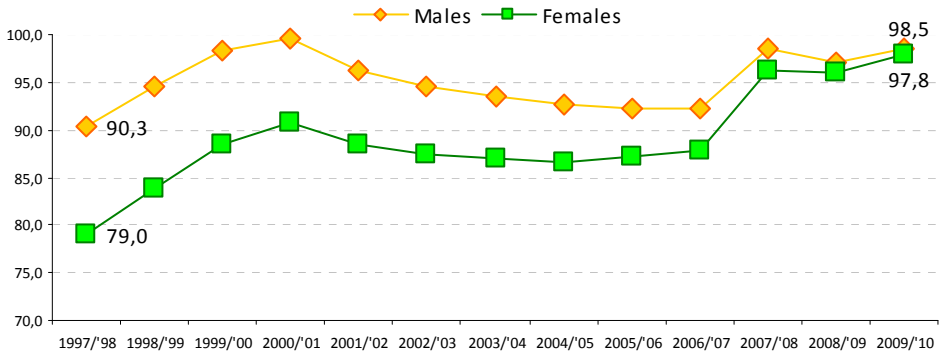
On the other side, Turkey during the last decade has achieved to catch up with other European countries regarding the participation rate of 7 year olds in primary education (see chart below).

Chart 10: Percentage of participation of 5 year olds in pre-primary education in 2008 by growth in participation since year 2000 (Source: Eurostat)



This achievement was made possible in Turkey because of the huge steps that have been made in widening the participation of girls in particular (see chart below).

Chart 11: Trends in participation in primary education in Turkey (Source: Turkish National Education Statistics, Formal Education 2009-2010[24])

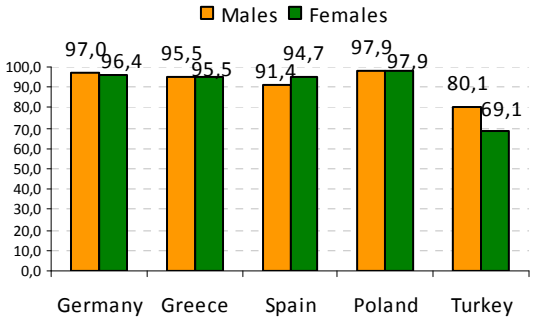


By the end of compulsory education however, many children in Turkey and particularly girls are no longer in formal education.

Chart 12: Students participation at the end of compulsory age (X[25]) - as % of population aged X, year 2008 (Source: Eurostat)

[24] Available by the Turkish Statistical Institute at: http://www.turkstat.gov.tr/VeriBilgi.do?tb_id=14&ust_id=5.

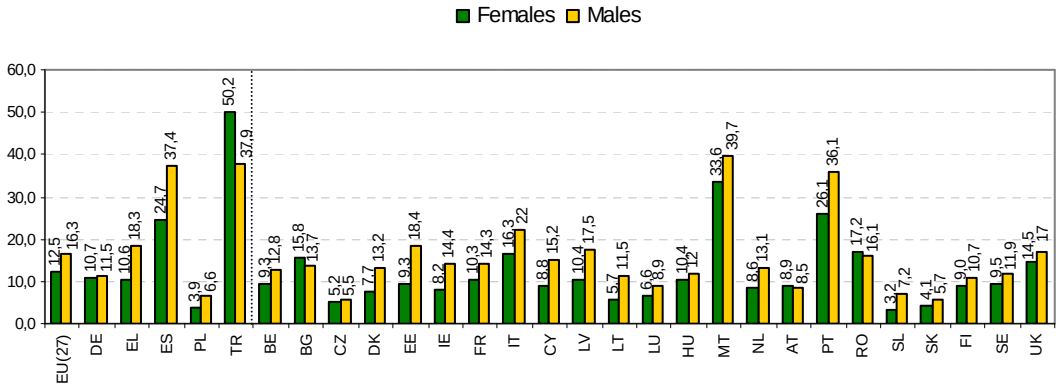
[25] X corresponds to the age marking the end of the compulsory education period. In the case of Germany, Spain and Poland this is the age of 16, in Greece 15, and in Turkey 14.



According to the findings of a qualitative study (Gökşen, Cemalcilar and Gürlesel, 2006) in Turkey which focused on children who have left school at an early age, this phenomenon is heightened during the 5th and 6th grade of the primary school; furthermore, girls, as compared to boys, tend to leave school at an earlier age. One of the most important family-based reasons for leaving school was identified to be related to the mother's education. Characteristically, the mother of 83,5% of those that left school early was not formally educated. Particularly for boys one important reason for leaving school was economic, as almost 52% of the boys who left school early were working in a paid job.

Following the approach adopted by Eurostat in defining early school leavers, it is not only Turkey but also Spain where the problem of early school leaving is particularly acute among the population of people aged 18-24, that is the younger generation (see chart below). In Turkey in particular 1 in 2 young females drop out of school with at most lower secondary education. Also, almost 4 in 10 males drop out of school in Spain and in Turkey.

Chart 13: Early school leavers as percent of the male and female population respectively aged 18-24 with at most lower secondary education and not in further education or training, year 2009 (Source: Eurostat)



Gender-wise, the percentage of male drop-outs among the male population of people aged 18-24 is higher than this of the female population in all EU countries, apart from Bulgaria and Romania. This finding suggests that in EU young females tend to stay longer in formal education as compared to young males.

Looking into longitudinal data regarding drop-outs (see charts below), it appears that during the last decade Turkey has made huge progress towards reducing the drop-out rate of the younger generation but the drop-out rate of both genders and particularly females is still particularly high.

Chart 14: Trends in the percentage of the male population aged 18-24 with at most lower secondary education and not in further education or training (Source: Eurostat)

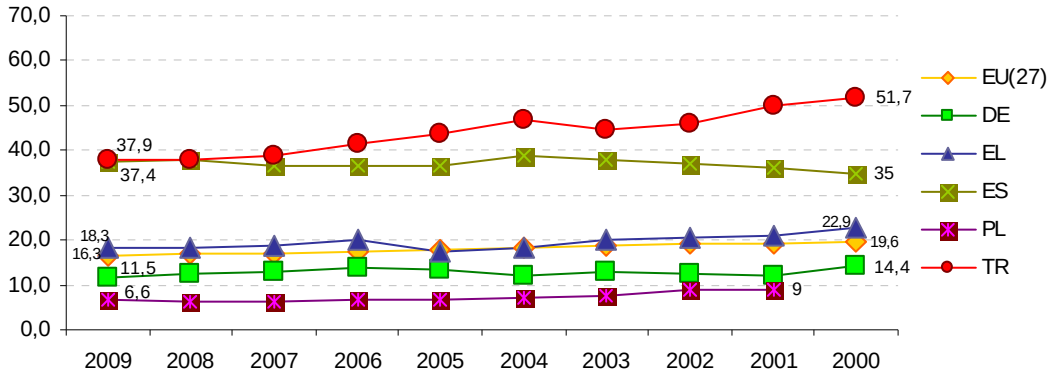
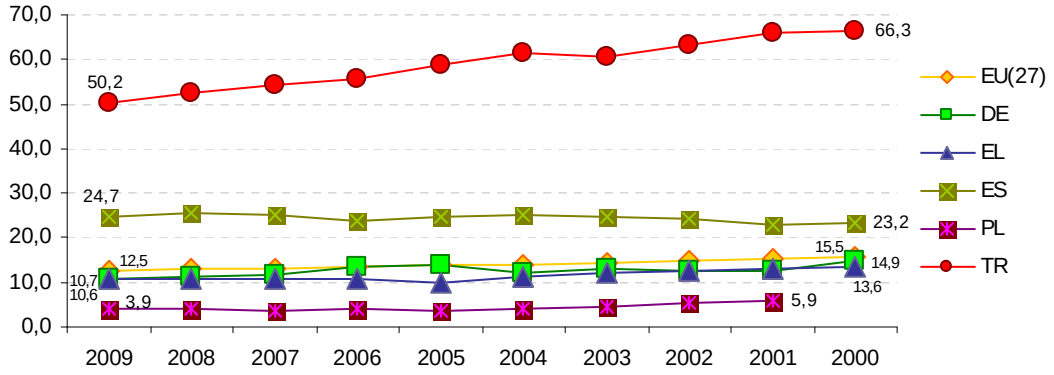


Chart 15: Trends in the percentage of the female population aged 18-24 with at most lower secondary education and not in further education or training (Source: Eurostat)



In no country represented in FARE the observed gap between male and female drop-outs (which, as pointed out earlier, is in favor of females apart from Turkey) is tending to close down. What is particularly alarming in the case of Spain is that the drop-out rate is not only high but it has also been slightly increased since 2000 for both genders.

4.1 Discrimination and segregation in primary and lower secondary education

A huge challenge in achieving equity of opportunities in participation in education among the school-age population of a country, a state or a region stems from factors having to do with the citizenship status of the (prospective) students and their families, their race or ethnic origin, gender, language or religion and socio-economic situation. Not surprisingly, in different countries, because of historic and socio-cultural reasons, different groups may face discrimination in education. However, some groups happen to be among the most disadvantaged and unfavorably discriminated across Europe.

Various forms of discrimination in European societies against Roma people, and immigrants are not uncommon. The EU-MIDIS "European Union Minorities and Discrimination Survey" (European Union Agency for Fundamental Rights, 2009), the largest survey to date of ethnic minorities living in Europe, with 23.500 participants, has found that the majority experience racism and discrimination on a day-to-day basis, with Roma and Africans feeling especially vulnerable. Around 90 percent of North Africans in Italy and France reported discrimination, while around 85 percent of Roma living in

Hungary, the Czech Republic, Slovakia and Greece said they had been treated with prejudice because of their ethnicity. In Germany, just over half of all Turkish residents surveyed said discrimination based on ethnicity is widespread.

The Convention against Discrimination in Education, United Nations Education, Scientific and Cultural organisation -UNESCO

Articles 1 and 3 of the Convention against Discrimination in Education of 14 December 1960 provide:

Article 1

"1. For the purposes of this Convention, the term 'discrimination' includes any distinction, exclusion, limitation or preference which, being based on race, colour, sex, language, religion, political or other opinion, national or social origin, economic condition or birth, has the purpose or effect of nullifying or impairing equality of treatment in education and in particular:

(a) Of depriving any person or group of persons of access to education of any type or at any level;

(b) Of limiting any person or group of persons to education of an inferior standard;

(c) Subject to the provisions of Article 2 of this Convention, of establishing or maintaining separate educational systems or institutions for persons or groups of persons; or

(d) Of inflicting on any person or group of persons conditions which are incompatible with the dignity of man.

..."

Article 3

"In order to eliminate and prevent discrimination within the meaning of this Convention, the States Parties thereto undertake:

(a) To abrogate any statutory provisions and any administrative instructions and to discontinue any administrative practices which involve discrimination in education;

(b) To ensure, by legislation where necessary, that there is no discrimination in the admission of pupils to educational institutions;

Roma today represent the biggest ethnic minority in Europe with a population that is estimated by the Council of Europe to be somewhere between 6,4 and 16,1 million people[26]. Among the FARE countries, the largest populations of Roma people live in Turkey, Spain and Greece.

Table 1: Estimated populations of Roma people in the FARE countries

Country	Total country population (July 2009)	Official number (last census)	Minimum estimate	Maximum estimate	Average estimate	% of total population (from average figure)
Germany	82.400.996	No data	70.000	140.000	105.000	0,13%
Turkey	71.892.807	4 656 (1945)	500.000	5.000.000	2.750.000	3,83%
Spain	46.157.822	No data	650.000	800.000	725.000	1,57%
Greece	10.722.816	No data	180.000	350.000	265.000	2,47%
Poland	38.500.696	12 731(2002)	15.000	60.000	37.500	0,10%

Source: Council of Europe, Roma and Travellers, data updated at 14/09/2010.

The EU-MIDIS "European Union Minorities and Discrimination Survey[27]" data show that discrimination in education establishments was experienced by 10% or less of all the general respondent groups surveyed. Among them, 10% of the Roma indicated they had experienced discrimination in education in the last 12 months, followed by 8% of North Africans and 6% of Sub-Saharan Africans. The survey's results show that North Africans in Italy are the most discriminated against group in the area of

[26] See Council of Europe, Roma and Travellers. Statistical data available at: http://www.coe.int/t/dg3/romatravellers/Source/documents/stats.xls.

[27] European Union Agency for Fundamental Rights (2009), *EU-MIDIS, European Union Minorities and Discrimination Survey. Main Results Report*, p. 11.

education, with 21% having experienced discrimination in the last 12 months, while the second highest rate of discrimination was indicated by Roma in Poland (20%).

> In the case of Roma the focus is not merely on discrimination by individuals but on 'structural discrimination'. Structural discrimination denotes both segregation and institutional discrimination. Segregation refers to the involuntary physical separation between Roma and non-Roma, whereas institutional discrimination describes the collective failure of an organization to provide an appropriate and professional service to Roma through unwitting prejudice, ignorance, thoughtlessness and racist stereotyping.
>
> Farkas, L. (2007), Segregation of Roma Children in Education. Addressing Structural Discrimination through the Race Equality Directive, Luxembourg: Office for Official Publications of the European Communities, p. 7.

Among the institutional factors promoting discrimination against Roma children in education that were identified in a report by the European Monitoring Centre on Racism and Xenophobia (2006, pp. 66-7) are the following:

- Enrolment and attendance barriers resulting from bureaucratic regulations requiring proof of residence status, or other documentation not readily available.
- Segregation of Roma students in different schools due to refusal of certain schools to enrol them.
- Segregation in different school classes on the grounds of performance problems that are wrongly attributed to assumed "ethnic" or "cultural" attributes which reinforce negative stereotypes and "label" pupils collectively.
- Assignment of Roma students to special education for reasons other than disability.
- Placement in lower than age-appropriate grades.
- Lack of intercultural school curricula and resources.

All the above points are more or less relevant in the case of Greece, one of the FARE countries under study. The grounds on which school administrators in *Greece* may refuse to enroll Roma children have often to do with their age as well as their permanent residence address or medical file. For example, a school administrator may refuse to enroll a Roma student in a school grade on the grounds that (s)he is older that the normal age of students in this grade or that (s)he cannot prove that (s)he is living permanently in the school area or that (s)he has not followed the necessary to all children vaccination programme. The reception of Roma children in pre-primary and primary schools, despite the positive rhetoric on behalf of the central educational authorities, varies depending on the socio-political views and resulting practices of the regional and local authorities but also specific school administrators (Dimitras, 2010). However, there appears to be some progress in tackling direct discrimination against Roma children in their access to schools as this is reflected by the absence of cases of direct discrimination of Roma in education examined by the Greek Ombudsman in the 2009 yearly report. On the other side, several cases of suspected discrimination against Roma on issues having to do with Roma settlements in various regions of Greece have been reported, with implications about the local school enrolment and attendance of Roma children. According to the Greek Ombudsman, the lack of updated Municipal registers for the Roma population is a cause of several problems they face in a wide range of public services. These problems, according to the Greek Ombudsman, are related to "… the fact that the public administration is addicted to know and recognize only persons who have permanent home address while for the rest the lack of or the uncertainty related to permanent home address causes lack of access to one or another social provision or exercise of a right" (o.p., p. 29).

In August 2010 Greece's central educational authorities responsible for pre-primary and primary education, cognizant of various incidents of discrimination, in an effort to enforce school administrators stop refusing to enroll Roma children published a circular[28] which stated that Roma

[28] See http://www.minedu.gov.gr/publications/docs/dt_kai_egkyklios_roma_100824.zip (in Greek).

children have to be enrolled in mainstream classes and reminded school administrators that exclusion or segregation of Roma students and their marginalization is against the Constitution and Law No. 3304/2005 which prohibits discriminations in education on the grounds of racial or ethnic origin. According to this circular Roma children have to be enrolled irrespective of their place of permanent residence and called the local educational authorities to undertake all the necessary measures for the Roma students to be vaccinated in case they have not. On the other hand, despite that the Ministry of Education acknowledges the existence of problems having to do with direct and indirect discrimination, segregation, low levels of participation and high drop-out rates in education among the Roma children, lacks central mechanisms to monitor the situation country-wide.

Recent initiatives to tackle issues of exclusion of Roma children from education

The most recent effort to address issues of exclusion of Roma children from education in Greece was undertaken in the context of the Operational Programme "Education and Lifelong Learning" (2007-2013). In June 2010, a sum of around 3m€ was allocated to education programmes for Roma children in 24 Municipalities located in four regions of Greece[29]. Among the goals of these programmes is to increase of the number of Roma children enrolled in pre-primary and primary schools through awareness raising among the Roma populations and targeted actions by schools and local authorities, and support and monitoring of their progress while at school through the provision of supplementary courses and teacher training. The programmes are estimated to start being implemented later in the academic year 2010-11.

In Poland the practice of having separate classes for Roma children is about to be eradicated and no new pupils are enrolled in such classes. According to a recent report[30], extra tuition is offered to Roma children to overcome any difficulties they may have and Roma assistants have been recruited to facilitate the integration of Roma children in education and help families with their dealings with school authorities.

Among the FARE national case studies, it is in Spain and Greece where, during the last two decades, there has been a huge inflow of economic immigrants and refugees which has lead to dramatic changes in the proportion of students with an immigrant background among the (prospective) student population. Back in 1998 among the Spain's population only 1,5% was of foreign nationality[31]. In 2009 this figure has grown to 12,3%. Similarly, in Greece the share of people of foreign nationality among the population has grown from 1,6% in 1998 to 8,3% in 2009.

On the other hand, in Poland and Turkey the share of foreign nationals among their general population did not change since 1998 and remains at very low levels (in both countries it is around 0,1%). However, in Turkey one of the most pressing issues regarding equity in access to education in relation to immigration has to do with internal, rural to urban immigration and internal displacement from eastern-southeastern areas to large cities and particularly Istanbul (Gökşen and Cemalcilar, 2010)[32].

In Germany there is a, comparable to Spain and Greece, large share of foreign nationality people among its general population (8,8% in 2009) but this has not changed considerably since 1998 because Germany was a traditional immigration destination long before Greece and Spain. The integration of immigrants in European societies is a much debated issue, closely related to education

[29] See http://www.edulll.gr/?p=1041 (in Greek).

[30] Council of Europe: European Commission Against Racism and Intolerance (ECRI), *ECRI Report on Poland (Fourth Monitoring Cycle), Adopted on 28 April 2010*, 15 June 2010, CRI(2010)18, p. 18. Available at: http://www.unhcr.org/refworld/docid/4c18768a2.html.

[31] Source of immigration data presented: Eurostat.

[32] For a wider overview of issues also related to equity in education in Turkey see the report on the human rights of minorities by the Commissioner for Human Rights of the Council of Europe following his visit to Turkey in June-July 2009 and the comments of the Republic of Turkey. Available by the Council of Europe, Commissioner for Human Rights at: https://wcd.coe.int/ViewDoc.jsp?id=1511197&Site=COE.

and discriminations in education. In a recent speech to her party supporters Chancellor Angela Merkel said multiculturalism in Germany has "utterly failed" and that "the failures of the last 30 or 40 years cannot be resolved so quickly". These comments came just a week after a visit to Berlin by Turkish Prime Minister Recep Tayyip Erdogan. The two leaders said they would work to improve the integration of the some 2,5m members of the Turkish community in Germany[33].

The EU's Race Equality Directive

The major legal instrument to combat discrimination in the EU Member States is the Race Equality Directive (Directive 2000/43/EC[34]) which all Members were required to incorporate and implement. According to the Directive,

"(a) direct discrimination shall be taken to occur where one person is treated less favourably than another is, has been or would be treated in a comparable situation on grounds of racial or ethnic origin;

(b) indirect discrimination shall be taken to occur where an apparently neutral provision, criterion or practice would put persons of a racial or ethnic origin at a particular disadvantage compared with other persons, unless that provision, criterion or practice is objectively justified by a legitimate aim and the means of achieving that aim are appropriate and necessary.

3. Harassment shall be deemed to be discrimination […], when an unwanted conduct related to racial or ethnic origin takes place with the purpose or effect of violating the dignity of a person and of creating an intimidating, hostile, degrading, humiliating or offensive environment. In this context, the concept of harassment may be defined in accordance with the national laws and practice of the Member States."

Within the scope of this Directive was:

- access to all types and to all levels of vocational guidance, vocational training, advanced vocational training and retraining, including practical work experience (Article 3, point b), and
- education (Article 3, point g).

However,
"this Directive does not cover difference of treatment based on nationality and is without prejudice to provisions and conditions relating to the entry into and residence of third-country nationals and stateless persons on the territory of Member States, and to any treatment which arises from the legal status of the third-country nationals and stateless persons concerned."

A quite widespread belief among Europeans is that the school has an important role to play in combating discrimination and social exclusion. In a relatively recent Eurobarometer survey, 42% of the respondents chose schools and universities as having the most important role in combating discrimination, placing them at the top of a list of 13 institutions, ranging from governments and NGOs to local authorities and the media[35].

In order for the school to combat discrimination and social exclusion it has to be open to everyone, irrespective of race, religion, health status, ethnicity or nationality. However, this is not always the case. The immigration statistics of Spain and Greece imply that schools in these two countries have been faced, within a relatively short period of time, with an increased demand to enroll students of immigrant background whose families sometimes did not even have the formal legal documents entitling them to live in Spain or in Greece. Not surprisingly, the right of asylum-seeking and non-recognized refugee children to participate in the formal education system was challenged at various levels from within and from outside of the formal system of education.

In Greece until 2009 children of immigrants who have been born in Greece did not automatically obtain the Greek citizenship and therefore they were living under the threat that they may be

[33] Source: DW-WORLD.DE, Deutsche Welle. Available at: http://www.dw-world.de/dw/article/0,,6118859,00.html.

[34] See http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32000L0043:en:HTML.

[35] See Special Eurobarometer 263 "Discrimination in the European Union" Report, January 2007, p. 26.

ordered by the authorities to leave the country by the age of 18. Within the context of a wide gray zone in the legal framework over the rights and status of immigrants and their children in Greece and prolonged delays by the authorities in processing their cases, various incidents that took place throughout the last 20 years have revealed how difficult it can be for them to access and progress within the education system even in the case they are excellent, top class students.

One of the most recent characteristic incidents which took place in March 2010 had to do with a circular issued by the Head of the Vocational Education of the Secondary Educational Authority of a region in Athens requesting from VET schools to demand from their immigrant background students to present their parents' residence permit in order to be allowed participate in the school graduation exams. This particular Head justified the circular on an earlier circular produced by the Ministry of Education a few years ago. This incident caused a debate in the Parliament and a swift response against the Head's circular by the Secondary Education Teachers Union[36]. Nevertheless, the "official" approach of the Ministry of Education remains unchanged. All students with migrant background in order to enroll to a school have to present to the school administrators the stay permit or the application for a stay permit of their parents[37]. Whether school administrators stick to the letter of the Ministry's circular or silently ignore is often related to their wider socio-political views and specific school policies[38]. In most cases migrant students do not face any problems in enrolling to a school. But some unlucky ones who are denied access by administrators who do not want (more) immigrant children in their schools, have to look for a more "immigrant-friendly" school. This situation has contributed further to the creation and reproduction of segregation phenomena where in some schools of the same area a large share or even the majority of students is of immigrant background while in others they are just a small minority. Informal institutional segregation is further established and reproduced by school choice made by parents. Although in Greece schools admit students based on their parents residence area, i.e. there is no such things as freedom of school choice, there is always some room for bypassing the regulations.

A Green Paper adopted by the European Commission on 3 July 2008[39] opened the debate on how education policies may better address the challenges posed by immigration and internal EU mobility flows. One of the key issues raised how to prevent the creation of segregated school settings, so as to improve equity in education.

In 2009 the Council of the European Union[40] invited the EU Member States to "take appropriate measures at their required level of responsibility - local, regional or national with a view to ensuring that all children are offered fair and equal opportunities, as well as the necessary support to develop their full potential, irrespective of background." One of the measures suggested by the Council was initiatives that increase the permeability of education pathways and removing barriers within school systems. The Council also invited the European Commission to "ensure that migration-related issues are adequately reflected in the Lifelong Learning

[36] See "To Vima on-line" at: http://www.tovima.gr/default.asp?pid=2&ct=32&artid=322440&dt=26/03/2010 (in Greek).

[37] See the discussion in the Parliament in its session on 13 May 2010 and the reply of the Deputy Minister of Education at: http://www.hellenicparliament.gr/Praktika/Synedriaseis-Olomeleias?sessionRecord=6ee4d970-dd81-496d-81ce-7013921ea003 (in Greek).

[38] Similar institutional barriers to access education by asylum seeking and non-recognized refugee children are not uncommon in many EU countries. In an effort to overcome this problem the state ministry of education of North Rhine-Westphalia in Germany issued a decree on 27 March 2008 pointing out that the students' residence status is not to be documented by schools and that the school heads must not request from students to provide registration certificates or passport copies of their parents. Source: European Union Agency for Fundamental Rights, 2009 Annual Report, p. 46.

[39] See http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52008DC0423:EN:NOT.

[40] Council of the European Union, Council conclusions on the education of children with a migrant background, 2978th Education, Youth and Culture Council meeting, Brussels, 26 November 2009, p. 6.

programme and other relevant Community programmes, the Adult Learning action plan and the Copenhagen process, as well as in other initiatives in the field of education and training, including higher education."[41]

Apart from local level semi-institutionalized routes to school segregation, the latter is widely established through residential segregation, a widespread phenomenon in Europe[42] and across the world. Overcoming the effect of residential segregation on school segregation by offering parents the freedom to enroll their children to any school and by allowing schools to enroll students not on the basis of their residence area but on the basis of their grades, may also lead to deeper segregation problems.

Characteristic is the admission reform which was introduced in 2000 in the city of Stockholm, the capital of Sweden. This reform was aimed to tackle school segregation which was established by the heavy concentration of poor families and families of immigrant background in certain neighbourhoods. The previous system was considered unfair because those from low-income and immigrant neighbourhoods had little chance of attending the best schools located in high-income neighbourhoods. However, the new system which was based on parents' freedom of school choice and schools' choice of students on the basis of their school grades not only increased student segregation by performance but also had a negative impact on segregation by immigrant/native background and socio-economic situation, i.e. the reform deepened further the problem that was aimed to address (Söderström and Uusitalo, 2010).

In Spain, where parents can choose to between public schools, "concerted" schools (private schools receiving public funding) and independent private schools, there are also such issues. An analysis of PISA data (rounds 2003 & 2006) for Spain concluded that "… not being an immigrant, having parents with better jobs and higher levels of education, and enjoying a higher endowment of material possessions and cultural resources all favour the selection of a private school, whether concerted or independent" (Escardíbul and Villarroya,2009). Not something not to be expected. Another study based on Madrid school area (Comunidad de Madrid) data obtained from the 2009 tests taken by all students in the 6th grade of primary school revealed that among the student population with an immigrant background only around 8% is enrolled in private schools (Anghel and Cabrales, 2010).Regarding performance by type of school the analysis of students' scores revealed that students in concerted and private schools perform better than students in public schools but when the education background of parents is taken into account these differences disappear. This finding suggests that better educated parents (and probably of higher socio-economic status) tend to send their children in private and concerted schools. Furthermore, the average parental education in the class was found to have a statistically significant impact on the school fixed effect. Beyond the effect of the education of their parents, the children experience an additional effect coming from their peers' parental background (o.p., p. 30). That is, classrooms with a high concentration of children with highly educated parents tend to perform better than classrooms with low concentration.

Institutional discrimination resulting in segregation may also be reflected in the disproportionate representation of students of immigrant background in special needs schools and classrooms. A recent study (Gabel *et al*., 2009) based on an analysis of student population data provided by Federal Statistical Office of Germany, showed that children without German citizenship, even if they were born in Germany, are increasingly over-represented in special schools. More concretely, it was estimated that children from parents of Serbian and Montenegro origin are 3,4 times more likely to be in a special school than native children, children of Turkish origin 1,5 times, and of Greek and Spanish origin 1,25 and 1,2 times respectively. As it was pointed out, "two-thirds of non-German students attending special schools were classified as having a 'learning disability', while the

[41] Ibid, p. 8.

[42] For the study on the ethnic primary school segregation mechanisms in Germany, see Kristen (2005; 2008).

proportion of German students classified in that category has declined from four-fifths in the 1970s to about half today…" (o.p., p. 633).

Segregation in schools can be effectively achieved not only through residential segregation or through informal, customary, enrolment practices among neighborhood schools of the same type which operate in a state of consensual silence, but also through informal "guidance" or formal assessment of students, which translates into placing them into the less demanding and promising education paths, often vocationally oriented programmes of study instead of academically oriented. In Germany segregation often results from early tracking, i.e. by separating at a very early age (starts by the age of 10) students at different school types, typically academic, vocational or comprehensive –depending on the school system of different States. School teachers have an important role in the assessment of students that leads to their assignment to a specific school type at lower secondary education level. However, according to a report (Muñoz, 2007, p. 14), undertaken on behalf of the UN's Human Rights Council not all teachers have been properly trained for such a task. Furthermore, education authorities may attach disproportionate weight to the linguistic competences of students (one of the key elements of the classification assessment) which may result in discriminations against students of foreign origin. According to this report, "the classification system tends to move the educational system away from an inclusive approach and to favour separation as an educational strategy, since it is based on the use of an educational structure which does not always categorize pupils appropriately" (o.p., p. 15).

5. Socio-economic characteristics of the student intake in upper secondary vocational education

According to a VET teacher in the area of Barcelona, Catalonia, Spain, interviewed by the FARE team, *"the vocational students are students with fewer economic resources and are generally less socially integrated".* Another VET teacher said *"the students of lower - middle class are those who tend to study vocational training".* One of the implications of low socio-economic background for the future plans of VET students is that they tend to choose not to continue with their studies in tertiary education level, something which, in turn, may have a negative impact on the VET schools' effectiveness in promoting life-long learning among their students. Teachers and administrators interviewed by the FARE team in Barcelona appeared convinced that their Centres promote lifelong learning in students; however they often commented that, although many students would like to do it, they have economic needs and therefore, after graduation they start working. Furthermore, I-VET students from low income families who are interested in VET specialties that are not offered at a VET school located at a reasonable distance from their home are more likely to enrol to another specialty which is offered by a local school. As it was pointed out by a Spanish VET teacher, *"all too often there are students who would like to study outside of their homes or geographical area, and for economic reasons have to choose something else, another type of study that may not be completed for lack of motivation".*

The choice of a vocational path instead of an academic one for reasons having to do with the economic situation of the family and not the inclinations or interests of the student is also something that was documented in the FARE national report for Greece. Characteristic is the following[43]:

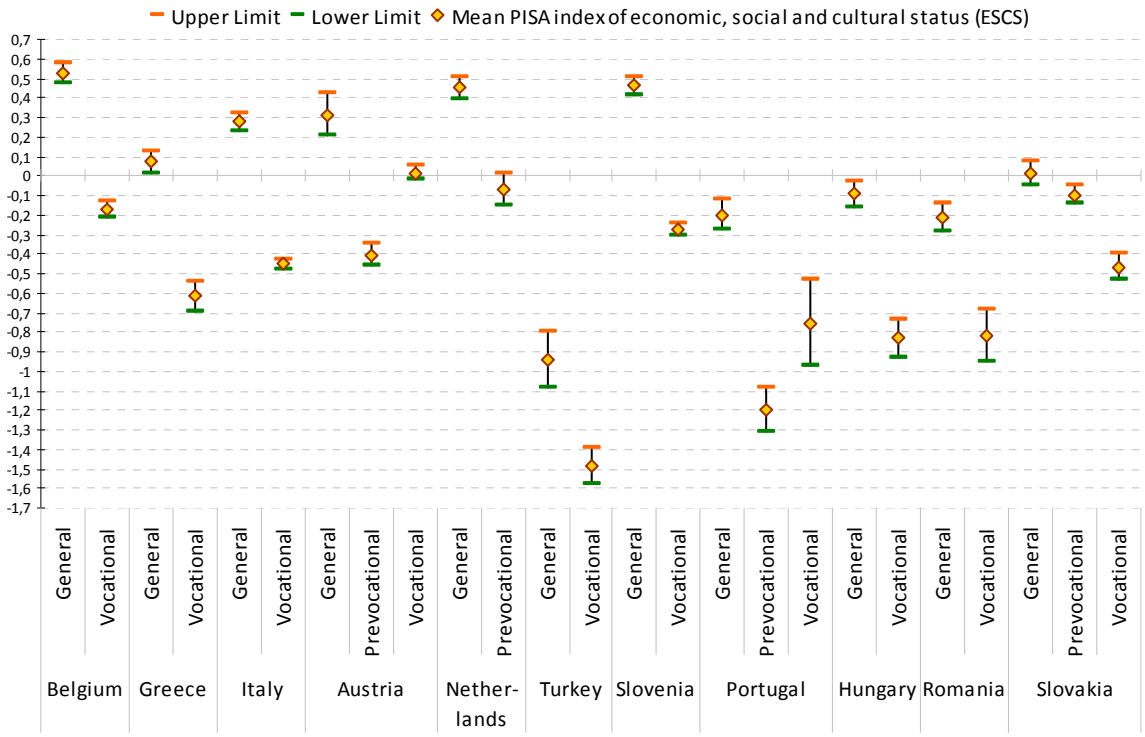
> In one instance we also participated as silent observers to an hour-long guidance session with a mother who wanted to understand what are the study programme and future career options of the second of her three daughters, now in Gymnasium. Her main concern was that her older daughter chose to enrol to a General Lyceum and the family could not afford to have its second child following an academic path with a view to get access to tertiary education, because this requires spending a few thousand euros in private tutoring. The counsellor [from the school's Labour Market Liaison & Vocational Guidance Office] was very analytic abut the study options offered by EPALs and the future study and career options after graduation from an EPAL. He was also very encouraging to this mother to enrol her daughter to the EPAL instead of the local General Lyceum highlighting the fact that she could also go to a tertiary vocationally oriented education institution (ATEI) after graduation through national exams under a specific status which is very beneficial for EPAL students as compared to General Lyceum students. This path means that the family would not have to pay extra money for private tutoring. The bottom line is that in Greece the choice of educational path is not only dependent on student inclination and academic effort but is also based on the economic situation of the families. Therefore, the economic factor introduces a high level of inequality of opportunity to education, LLL and future career options.

The issue of the predominantly low socio-economic background of students choosing to follow vocational orientation programmes surfaced in various discussions with VET people during the FARE

[43] Extracted from the FARE national report for Greece (2010).

qualitative research activities and for this reason we turned to PISA 2009 to cross-examine this view with "hard" evidence. Indeed, our analysis of the PISA 2009 raw data revealed huge gaps in the students' scores in the index of economic, social and cultural status (ESCS) by programme orientation per country examined (see chart below).

Chart 16: Means and 95% confidence intervals around the means of the PISA index of economic, social and cultural status (ESCS*) by programme orientation per country (Raw data source: PISA 2009)



* The PISA index of economic, social and cultural status (ESCS) was derived from the following three indices: highest occupational status of parents, highest educational level of parents in years of education according to ISCED, and home possessions. The final values on the PISA index of economic, social and cultural status (ESCS) have an OECD mean of 0 and a standard deviation of 1 (see Pisa Data Analysis Manual: SPSS® Second Edition, OECD, 2009, p. 472-474).

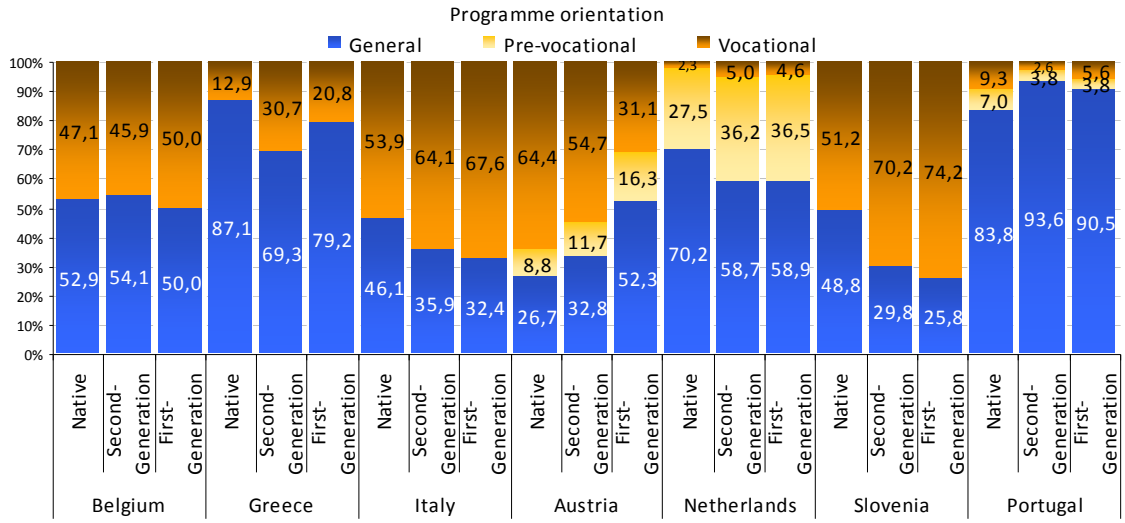
The data available show that 15 year olds in I-VET programmes and schools tend to come from families that are of much lower socio-economic and cultural status as compared to the families of those who choose academically oriented programmes and schools. The above, we believe, reflect an underlying student segregation mechanism operating at several levels.

From the side of the families, this mechanism may be reproduced both on the basis of their objective financial capacity and of their dispositions and aspirations regarding what is best for their children. Academically oriented programmes at upper secondary education level usually prepare students for tertiary education studies. This prospect means that the families which encourage their children to follow this path have to be prepared to financially support them for several years ahead. On the other side, initial vocational programmes, although, as we shall see, do not close the doors to tertiary education, are much more oriented towards preparing students for the labour market and therefore are more attractive to parents who do not have the means to finance their children's education beyond upper secondary education level. At the level of dispositions, families of a lower socio-economic background may develop more positive views about vocational education as offering more "valuable" learning for their children in that it helps them, early in their lives, develop knowledge and skills that are relevant to the realities and demands of the labour market. Furthermore, parents with

relatively low formal education may tend to feel more knowledgeable and therefore more confident and able to support their children with their everyday vocational courses as compared to academic courses which often require an advanced level of prior formal education. Likewise, students coming from families which cannot afford sending them to the university may see vocational education as the only realistic option for a better future, particularly among those coming from families which are faced with poverty risks or are living in poverty. At dispositional level, children of white collar, highly educated, parents who work as doctors, lawyers, architects, engineers, teachers, or middle and senior managers in the private and public sectors, may be entirely discouraged, even if they want to, to consider a vocational path because this would mean that they are heading to a career that most likely will be of a lower status than this of their parents.

Regarding the immigrant background of students the trends are not so clear-cut as the socio-economic and cultural background of their families. In Belgium, for example, second and even first immigrant generation students are equally likely to follow vocational or academic paths as their native peers (see chart below). In Austria, more than half of the first immigrant generation students tend to follow academic paths in contrast to their native peers who predominantly choose vocational paths. In Slovenia, proportionally much more first and second immigrant generation students follow vocational education as compared to native students. In Greece, although the large majority of students choose to follow academic programmes in General Lyceums, native students are less likely to choose to enroll in a Vocational Lyceum as compared to second immigrant generation students.

Chart 17: Programme orientation choice by immigrant background* of 15 year olds per country (Raw data source: PISA 2009)



* PISA distinguishes between three types of student immigrant status: i) students without an immigrant background, also referred to as native students, are students who were born in the country where they were assessed by PISA or who had at least one parent born in the country; ii) second-generation students are students who were born in the country of assessment but whose parents are foreign-born; and iii) first-generation students are foreign-born students whose parents are also foreign-born.

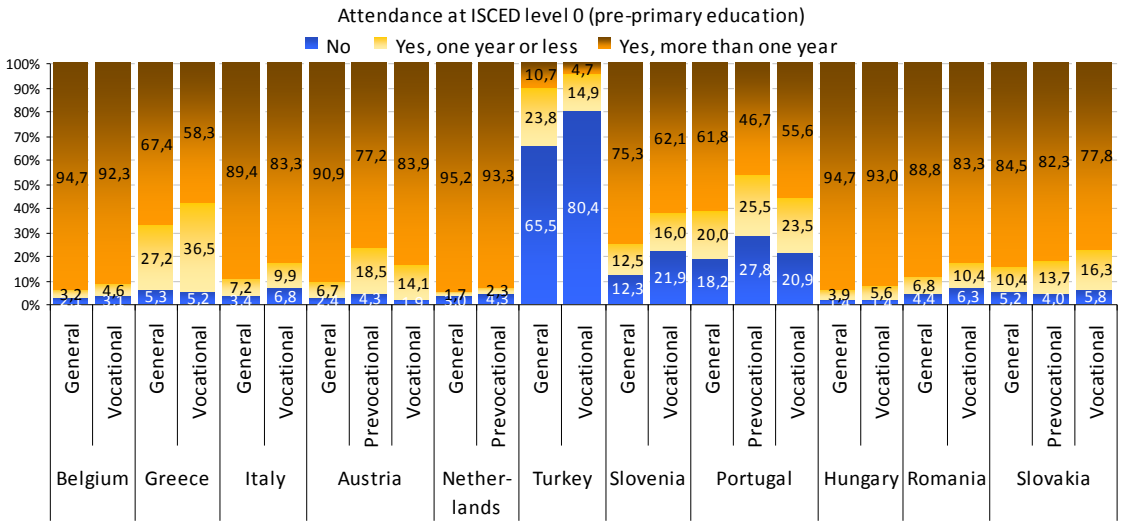
Overall, the data presented in the above chart do not indicate the existence of any extreme or intense segragational issue between vocational and academic orientation programmes and schools along the line of the immigration status of the students.

Another issue that surfaced during discussions with VET people about the student intake of I-VET schools and programmes was that this is characterized by the generally low prior academic achievement of many of them. As it was characteristically stated by some VET teachers in Spain, the

general perception that people express about VET is that it is for *"those who are not good for studying"*. This view about the educational background of students who choose vocational instead of academic paths was also a common topic of discussions with VET people in Greece. In order to further explore the validity of this perception we turned to the 2009 PISA data.

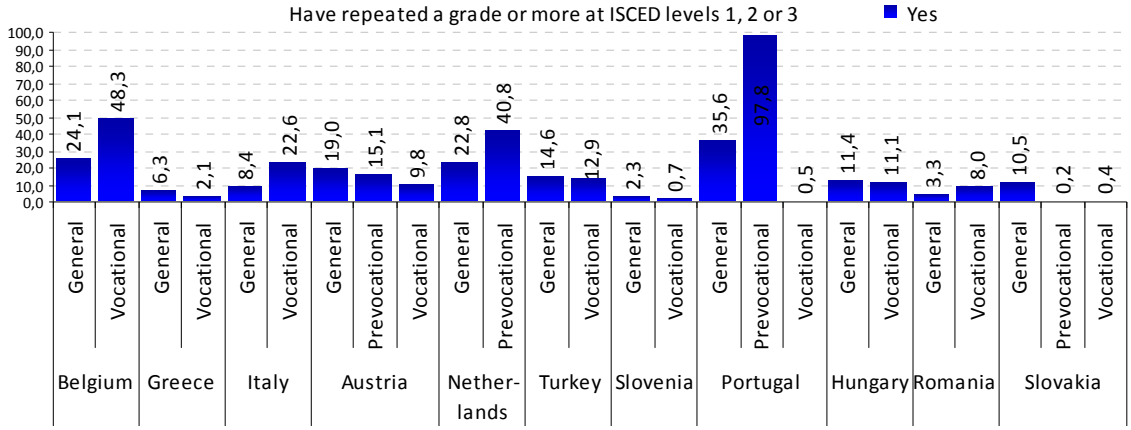
The PISA 2009 raw data analysis shows that in some countries, mainly Belgium, the Netherlands and Hungary but also Italy, Romania and Slovakia, the vast majority of 15 year olds in either general/academic or vocational education have participated for at least two years in pre-primary education (see chart below). In Turkey, on the other side, where there is no wide provision of pre-primary education, proportionally much more vocational orientation students (80,4%) have not gone to a pre-primary school as compared to academic orientation students (65,5%). In Greece but also in Slovenia and Austria academic orientation students are more likely to have spent 2 years in pre-primary education as compared to (pre)vocational orientation students.

Chart 18: Attendance at ISCED level 0 (pre-primary education) of 15 year olds by programme orientation per country (Raw data source: PISA 2009)



Regarding the share of 15 year olds who have repeated a grade at ISCED levels 1, 2 or 3 by programme orientation, the PISA 2009 data show no clear trend across the countries examined here (see chart below). In Portugal, the vast majority of students identified by PISA 2009 as falling into the pre-vocational orientation programmes category have repeated a grade, a finding that indicates that effectively these programmes in this country are a kind of educational ghetto for those with a history of school failure. In Belgium and the Netherlands, more than 40% of the students in vocational programmes have also repeated a grade during their formal schooling, a figure that is almost double than this of the general education students. Finally, in Italy more than 2 in 10 students in vocational programmes have repeated a grade as compared to less than 1 in 10 among those following a general education programme.

Chart 19: Percentage of 15 year olds who have repeated a grade or more at ISCED levels 1, 2 or 3* by programme orientation per country (Raw data source: PISA 2009)

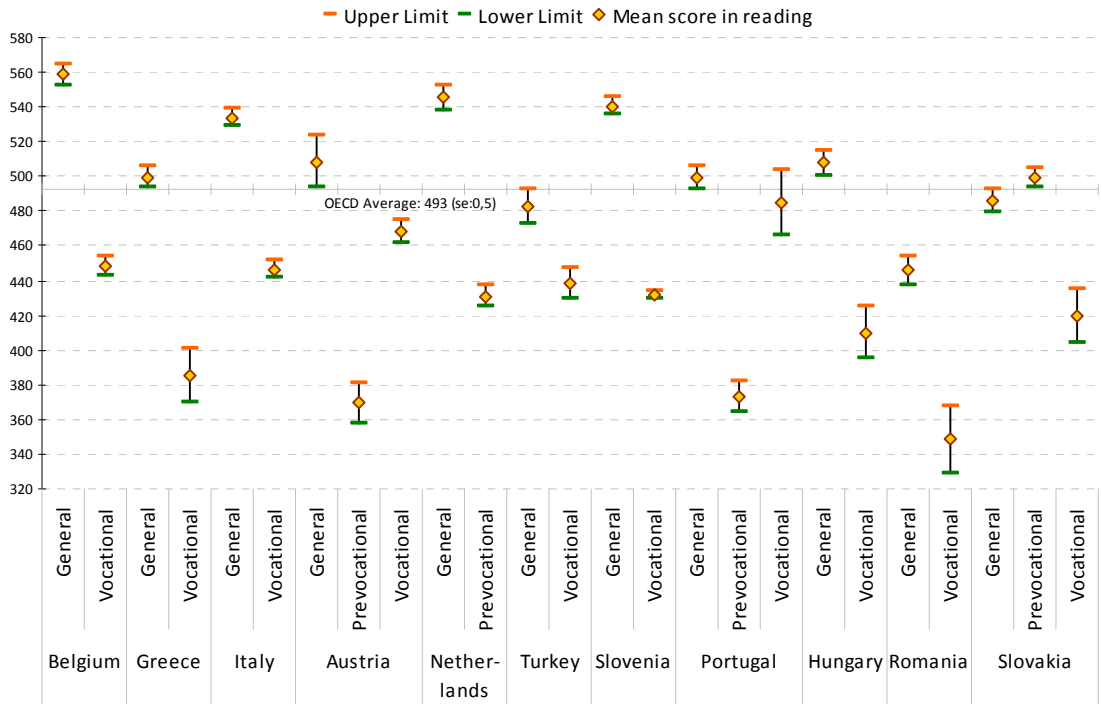


* In Turkey the percentage is based only on those who repeated one or more grades at ISCED levels 1 &/or 3. In Slovenia on those who repeated one or more grades at ISCED level 2. In Romania on those who repeated one or more grades at ISCED levels 1 &/or 2.

From the socio-economic and educational background of students in vocational and general/academic education programmes we now turn our focus on their performance in the PISA 2009 assessments in reading, mathematics and science. The content of the PISA assessments was designed to more broadly assess the cumulative outcome of learning in school, starting from early childhood and up to age 15 and embracing experiences both in school, home and beyond. Therefore, differences in mean scores between vocational and general/academic orientation students cannot be attributed to differences in the quality of learning that takes place between the two. On the other side, such differences can support the argument that vocational orientation programmes "attract" a large share of low performers, a view that was frequently expressed during discussions with VET teachers in Greece and Spain.

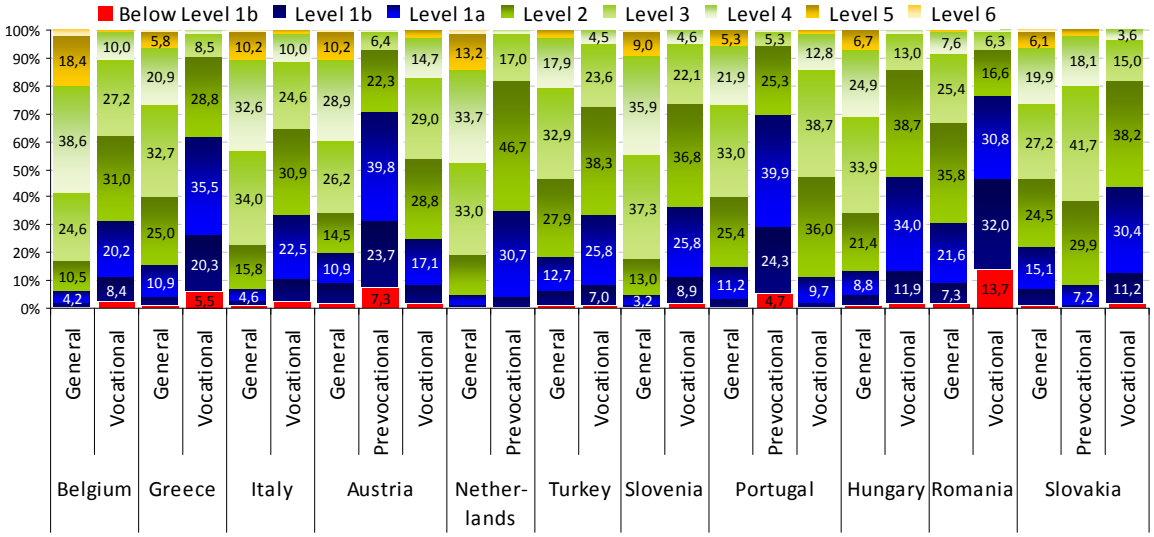
As shown on the chart below, in only 2 out of the 11 countries examined here the mean score in *reading* of 15 year olds in a (pre)vocational programme does not differ from this of their peers in general orientation programmes/schools, namely Portugal and Slovakia. In all other countries the differences in mean scores are striking in favour of general education students. Characteristically, general education students in Belgium, Greece, Italy, Austria, the Netherlands, Slovenia, and Hungary have, on average, scored higher than the OECD average while their peers in (pre)vocational orientation programmes have scored (much) lower. This finding clearly indicates a huge performance gap in reading between general and vocational education students across several countries in the sample.

Chart 20: Mean score in reading and 95% confidence interval around the mean of 15 year olds by programme orientation per country (Raw data source: PISA 2009)



As shown on the chart below, top performing students in reading (levels 5 or 6) are virtually absent from vocational orientation programmes and schools. In contrast, in all countries examined a large share of (pre)vocational orientation students is below the level 2 threshold, particularly in Greece, Austria, the Netherlands, Portugal and Romania.

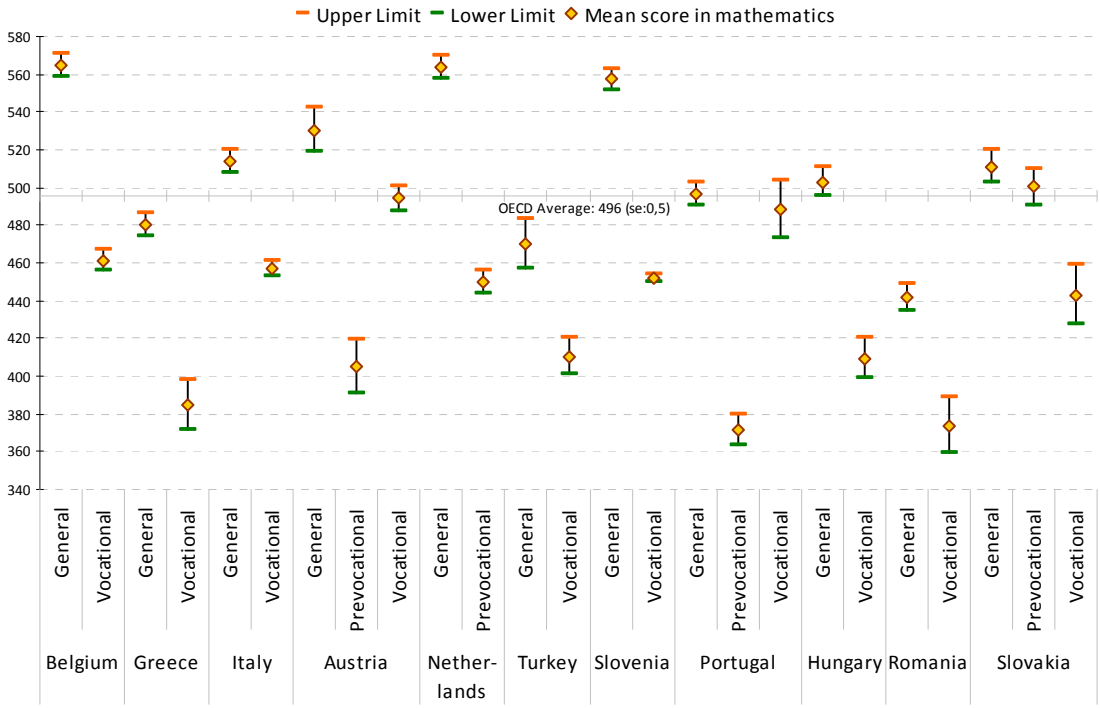
Chart 21: Percentage distribution of students in proficiency levels[44] in reading by programme orientation per country (Raw data source: PISA 2009)



[44] For descriptions of the PISA proficiency levels see PISA (2010). *PISA 2009 Results: What Students Know and Can Do. Student Performance in Reading, Mathematics And Science*, Volume I, Programme for International Student Assessment, OECD. Lower level means lower proficiency.

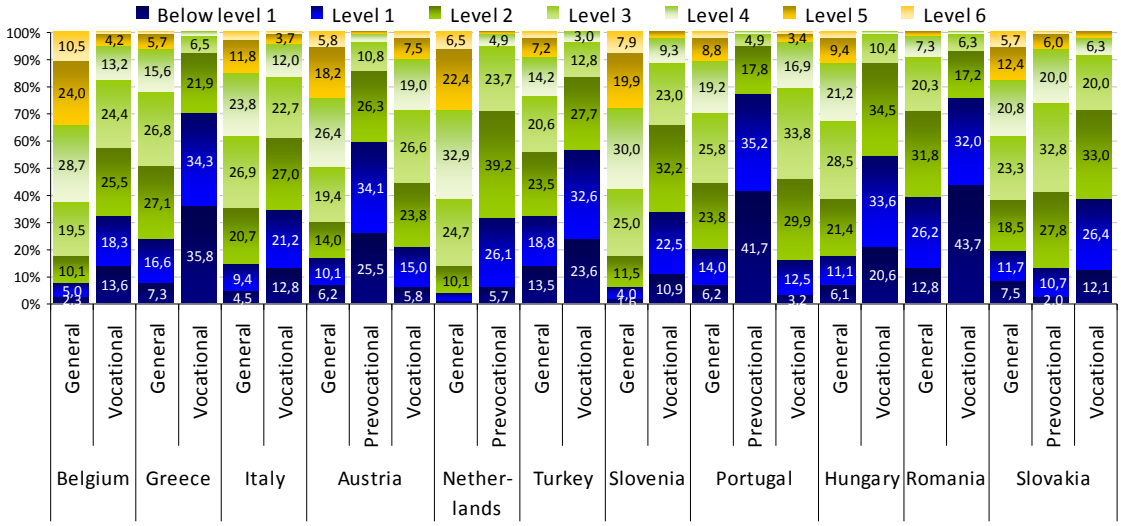
Similar differences in students' performance by programme orientation also appear in the PISA 2009 *mathematics* assessments (see chart below). In all countries in the sample except Portugal and Slovakia the students in (pre)vocational programmes have performed on average (much) lower than their general education peers.

Chart 22: Mean score in mathematics and 95% confidence interval around the mean of 15 year olds by programme orientation per country (Raw data source: PISA 2009)



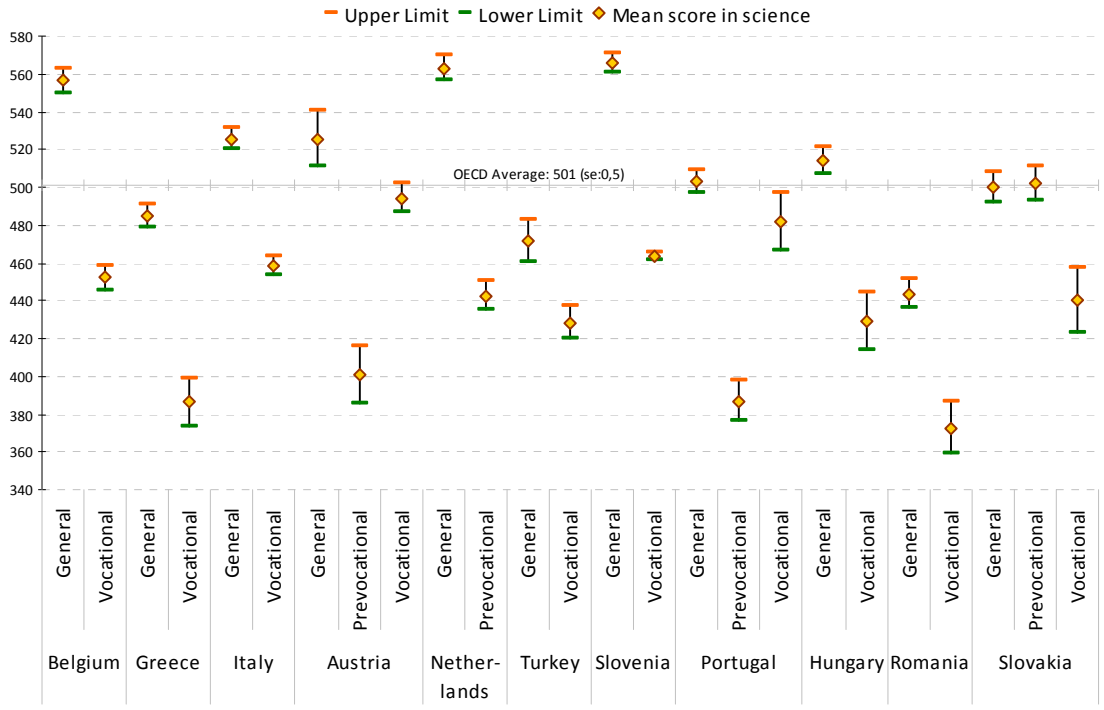
It is characteristic than in many countries in the sample, the majority of students in vocational orientation programmes/schools did not score above level 1, namely in Greece, Austria (pre-vocational), Turkey, Portugal (pre-vocational), Hungary, Romania and Slovakia (vocational) (see chart below).

Chart 23: Percentage distribution of students in proficiency levels in mathematics by programme orientation per country (Raw data source: PISA 2009)



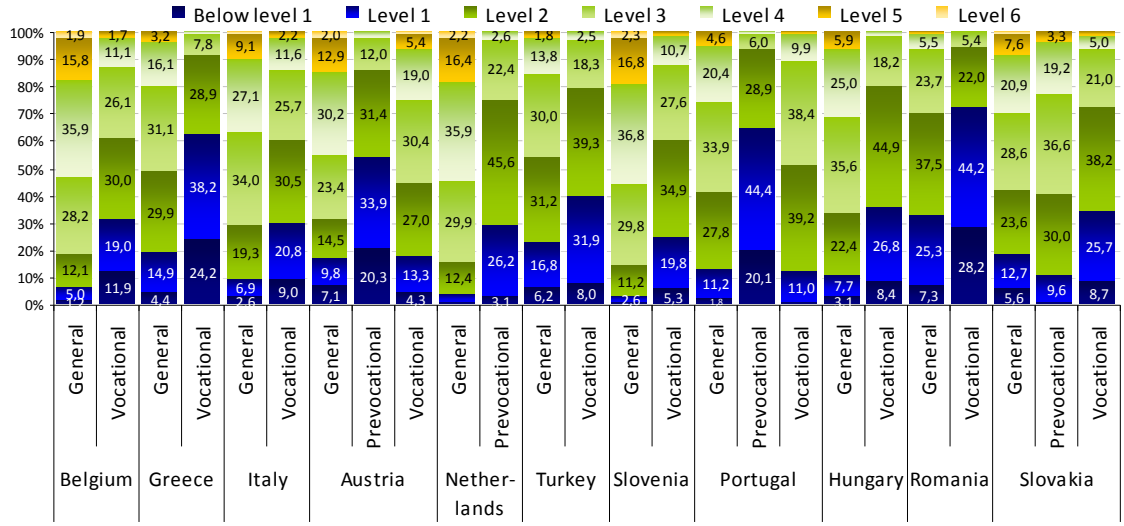
Finally, in all countries in the sample, except in Portugal and Slovakia, the students in (pre)vocational programmes have also performed in the science assessments on average (much) lower than their general education peers (see chart below).

Chart 24: Mean score in science and 95% confidence interval around the mean of 15 year olds by programme orientation per country (Raw data source: PISA 2009)



As shown on the chart below, the majority of students in vocational orientation programmes/schools in Greece, Austria (pre-vocational), Portugal (pre-vocational), and Romania did not score above level 1 in science. In all other countries the share of 15 year olds scoring up to level 1 in science was much higher than this of general education students.

Chart 25: Percentage distribution of students in proficiency levels in science by programme orientation per country (Raw data source: PISA 2009)



Overall, the above PISA results indicate that the "the cumulative outcome of learning" of 15 year olds in reading, mathematics and science throughout their years of schooling tends to be much lower in terms of performance among those following a vocational orientation programme than those following a general education programme. One of the major implications of the above is that (huge) inequalities of outcomes accumulated during the pre-school and compulsory school years are not evenly shared between different types of programmes and schools and that it is mainly vocational and pre-vocational programmes and schools (with the exceptions that have been highlighted earlier) that are faced with the huge responsibility to deal with a high proportion of 15 year olds who face problems in reading tasks which require the reader to make comparisons or contrasts based on a single feature in the text, are challenged in mathematic tasks which demand from them to interpret and recognize situations in contexts that require no more than direct inference or is difficult for them to show that they are capable of direct reasoning and making literal interpretations of the results of scientific inquiry or technological problem solving[45]. Given also that a large share of students in vocational orientation programmes and schools are coming from families of low socio-economic background, it is to be expected that the educational staff in these programmes and schools have also to deal with students with comparatively limited resources at home, such as learning materials and extra-curricular learning opportunities.

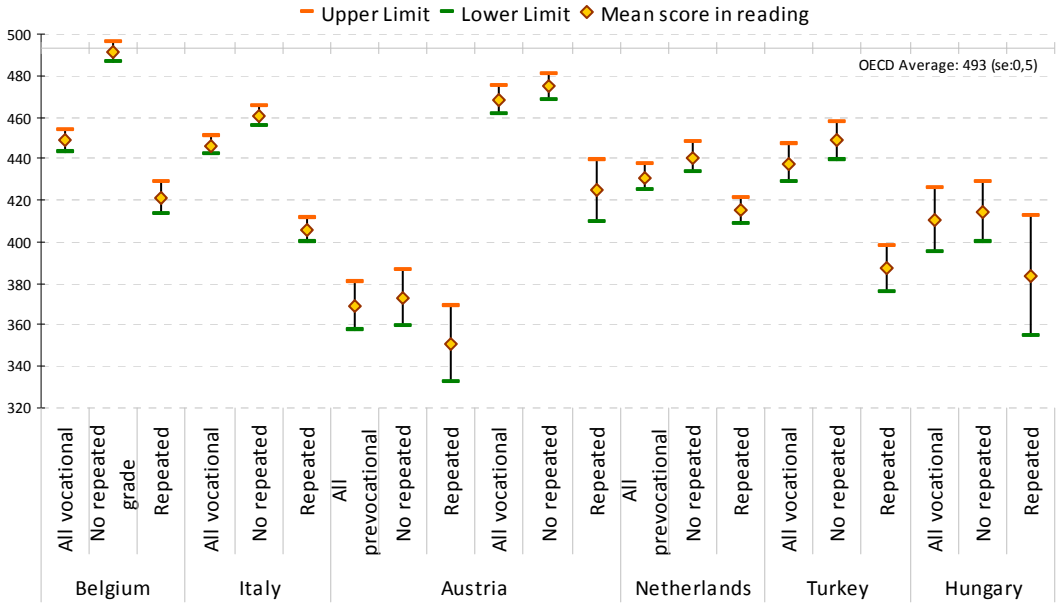
The evidence emerging from a growing body of international studies shows that educational equity is not only an issue of fairness but also an economic issue. A recent OECD study of economic growth projections, for example, estimated the current net value of educational reforms that would bring everyone in a country to a baseline level of performance in PISA. The results suggest that bringing the lowest-performing students in the OECD area – many of whom are socio-economically disadvantaged – at least up to 400 score points on the PISA scale, which corresponds roughly to the lower boundary of the PISA baseline level 2 of proficiency, could imply an aggregate gain of national income in the order of USD 200 trillion over the lifetime of the generation born in 2010 (PISA, 2010, vol. II).

It is perhaps not surprising that among the 15 year olds in vocational orientation programmes/schools, the weakest students in terms of their performance in the PISA 2009 assessments tend to be those who have repeated one or more grades at primary or lower secondary

[45] All the above are descriptions of what students can typically do at proficiency level 2 in reading, mathematics and science respectively. For descriptions of the PISA proficiency levels see PISA (2010, vol. I).

education. Regarding reading this is true in Belgium, Italy, Austria (vocational but not pre-vocational), Netherlands and Turkey (see chart below).

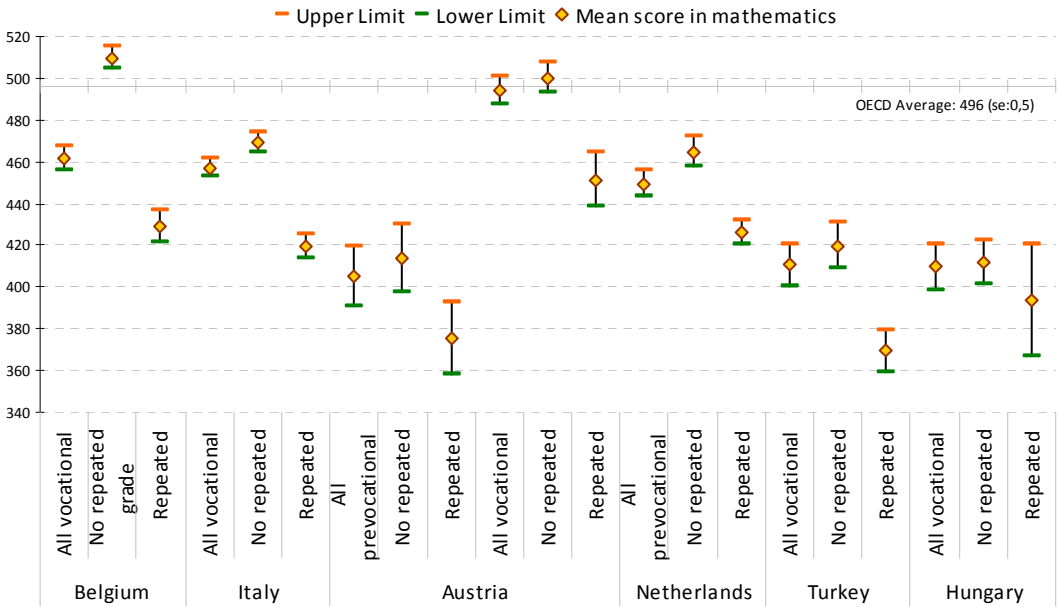
Chart 26: Mean scores and 95% confidence intervals around the means of the (pre)vocational orientation students in reading (total, those who have repeated a grade or more at ISCED levels 1, 2 or 3* and those who have not) per country (Raw data source: PISA 2009)



* In Turkey the percentage is based only on those who repeated one or more grades at ISCED levels 1 &/or 3.

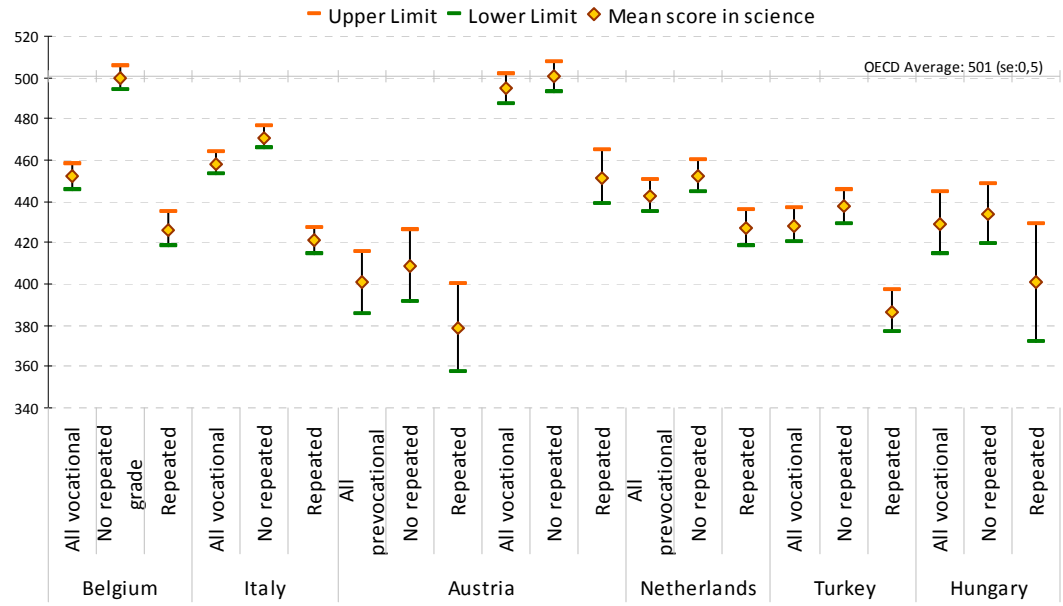
Similarly, vocational orientation students who have repeated one or more grades perform lower in mathematics in the same set of countries, namely Belgium, Italy, Austria (vocational but not pre-vocational), Netherlands and Turkey (see chart below).

Chart 27: Mean scores and 95% confidence intervals around the means of the (pre)vocational orientation students in mathematics (total, those who have repeated a grade or more at ISCED levels 1, 2 or 3* and those who have not) per country (Raw data source: PISA 2009)



The same, more or less, pattern appears regarding performance in science (see chart below).

Chart 28: Mean scores and 95% confidence intervals around the means of the (pre)vocational orientation students in science (total, those who have repeated a grade or more at ISCED levels 1, 2 or 3* and those who have not) per country (Raw data source: PISA 2009)

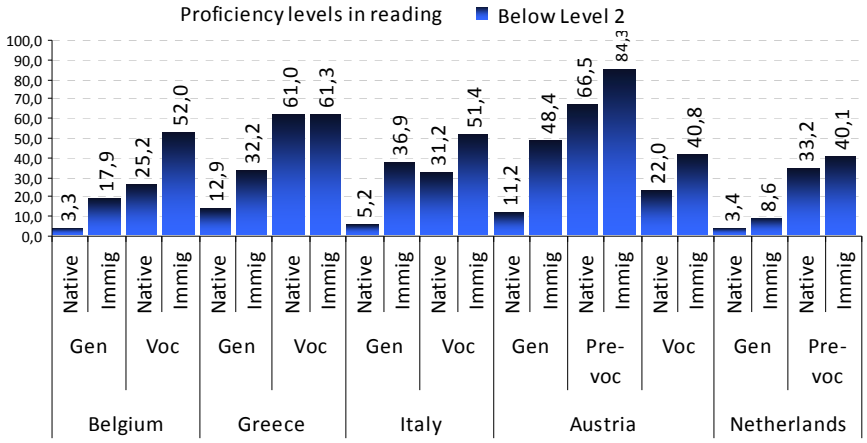


* In Turkey the percentage is based only on those who repeated one or more grades at ISCED levels 1 &/or 3.

Overall, our analysis shows that I-VET students who have already repeated a grade during their primary and lower secondary school years tend to be performing lower in reading, mathematics and science as compared to their peers in I-VET who have not.

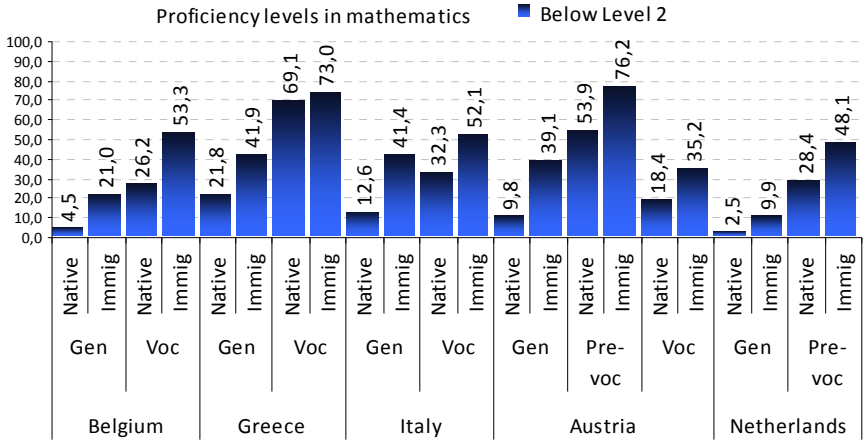
Focusing now on the immigration background of students rather extreme gaps in the "the cumulative outcome of learning" of 15 year olds in reading, mathematics and science are observed between native students in general education programmes and students with an immigrant background (first and second generation) in vocational programmes. It is characteristic that in Belgium only around 3% of native 15 year olds in general education are falling below proficiency level 2 in reading; below this level falls more than 50% of the immigrant background students in vocational education. In Italy the respective figures are 5,2% and 51,4%, in Austria 11,2% and 84,3% (pre-vocational) and in the Netherlands 3,4% and 40,1% (pre-vocational). However, it should be pointed out that among vocational education students in Greece, the percentage of 15 year olds below proficiency level 2 is the same for native and immigrant students (61 and 61,3% respectively), something which means that immigration background is unrelated to their (low) performance.

Chart 29: Percentage of students scoring below proficiency level 2 in reading by immigration background and programme orientation per country (Raw data source: PISA 2009)



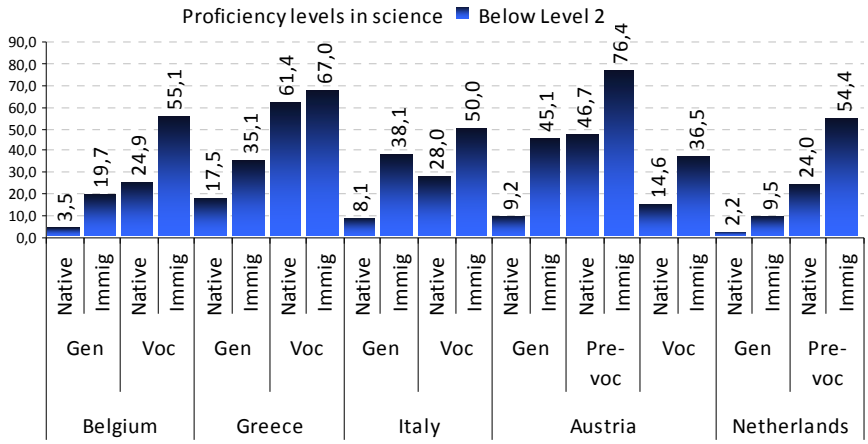
Regarding low performance in mathematics from the perspective of programme orientation by immigration background the pattern is similar to reading (see chart below). In Belgium 4,5% of native 15 year olds in general education are below proficiency level 2 in mathematics; below this level falls 53,3% of the immigrant background students in vocational education. In Italy the respective figures are 12,6% and 52,1%, in Austria 9,8% and 76,2% (pre-vocational) and in the Netherlands 2,5% and 48,1% (pre-vocational).

Chart 30: Percentage of students scoring below proficiency level 2 in mathematics by immigration background and programme orientation per country (Raw data source: PISA 2009)



Huge gaps in the share of students performing below proficiency level 2 in science by immigrant background and programme orientation are also evident (see chart below).

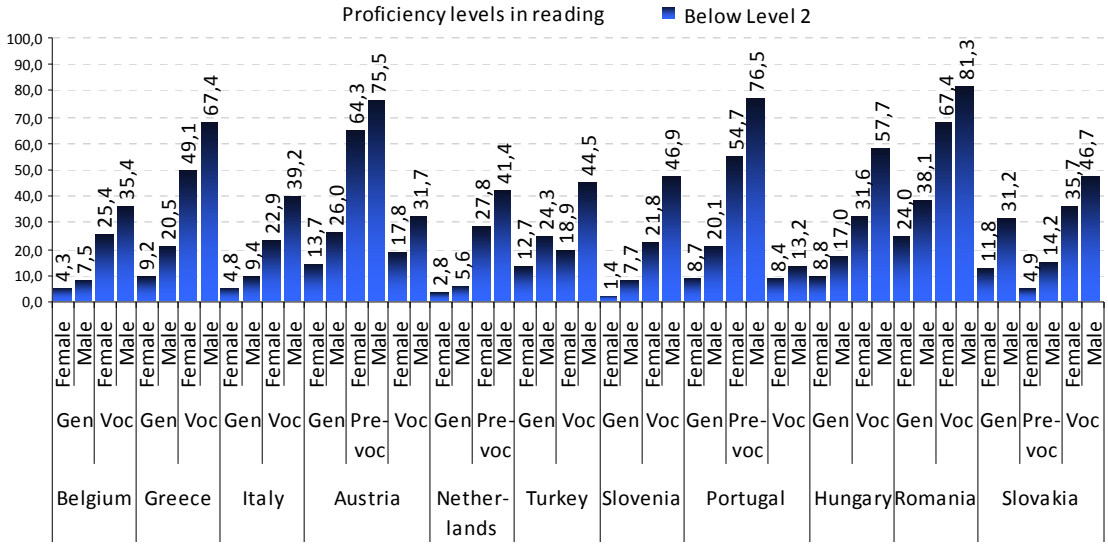
Chart 31: Percentage of students scoring below proficiency level 2 in science by immigration background and programme orientation per country (Raw data source: PISA 2009)



Overall, the analysis of the PISA 2009 raw data show that among the student population of 15 year olds in the countries in the sample, there are huge gaps in the share of those falling below proficiency level 2 in the PISA 2009 assessments in reading, mathematics and science between native students in general orientation programmes and immigrant background students in vocational orientation programmes. Within the student population in vocational orientation programmes/schools there are also considerable gaps in performance between native and immigrant background students but to a lesser degree. The only exception to this trend is Greece where such gaps were not observed within vocational education, a finding which indicates that low performance is unrelated to the immigration background of students.

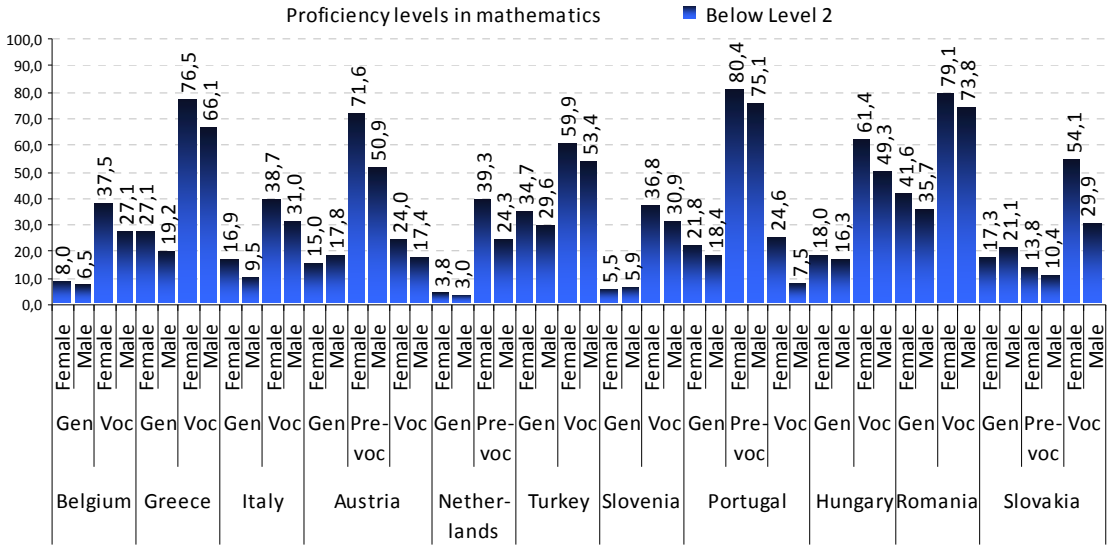
Regarding gender differences in the share of 15 year olds falling below proficiency level 2 in mathematics and science, these tend to be comparatively the smallest among students in general orientation programmes/schools (see next three charts). Regarding reading performance in general schools by gender, considerably more boys in Slovakia as compared to girls fall under proficiency level 2 (31,2% and 11,8% respectively), followed by Austria (26% and 13,7% respectively), Turkey (24,3% and 12,3% respectively) and Greece (20,5% and 9,2% respectively).

Chart 32: Percentage of students scoring below proficiency level 2 in reading by gender and programme orientation per country (Raw data source: PISA 2009)



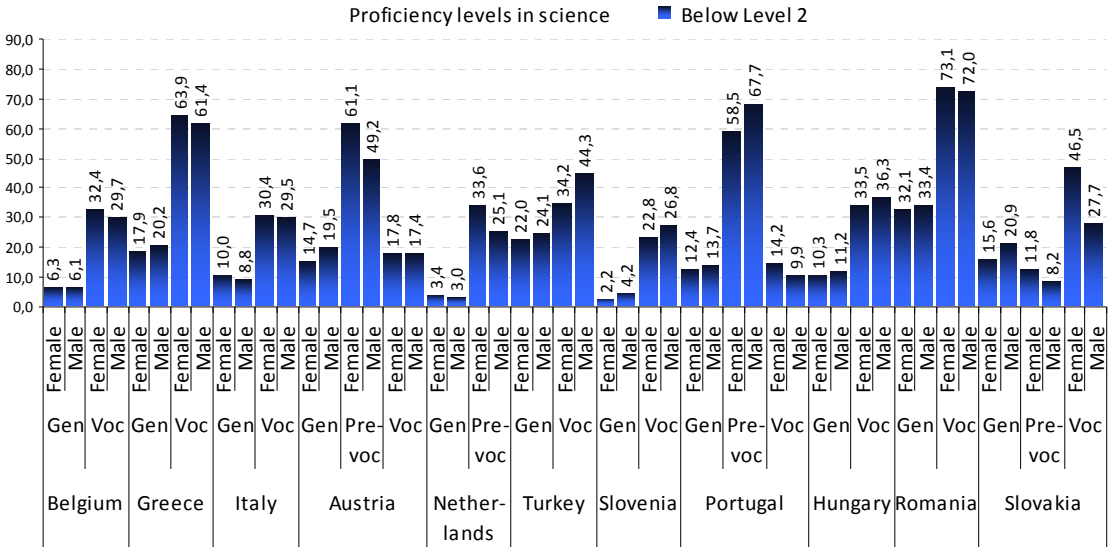
In all countries in the sample the largest gaps are observed mainly among the 15 year olds in vocational orientation programmes. These gaps tend to be wide in favour of girls in the case of reading (see chart above); slightly less wide gaps are observed in mathematics in favour of boys (see chart below).

Chart 33: Percentage of students scoring below proficiency level 2 in mathematics by gender and programme orientation per country (Raw data source: PISA 2009)



Comparatively, the lowest gaps in the share of low performers by gender are observed in science (see chart below). Again, the striking exception is Slovakia's 15 year olds in vocational programmes where the gap in the share of the girls falling under proficiency level 2 is considerably higher than this of boys (46,5% and 27,7% respectively).

Chart 34: Percentage of students scoring below proficiency level 2 in science by gender and programme orientation per country (Raw data source: PISA 2009)



As we have shown, the analysis of the PISA 2009 raw data generally confirm the view that was often expressed by VET people, teachers and administrators, during FARE's qualitative research that the

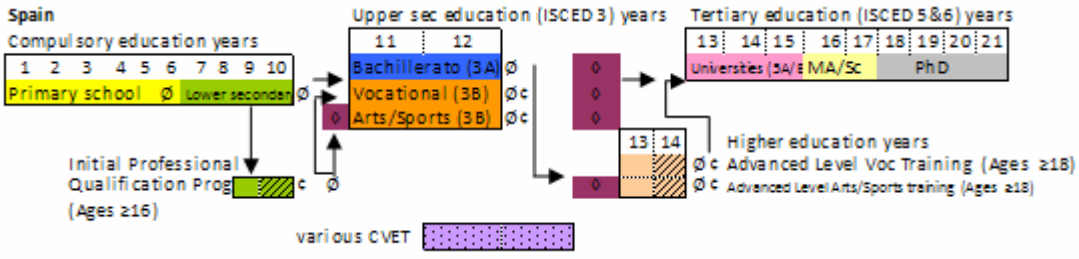
student intake of vocational orientation programmes and schools differs considerably from the student intake of general orientation programmes and schools. The families of students who follow vocational orientation schools tend to be of much lower socio-economic and cultural status than the students' families in general orientation programmes. Futhermore, 15 year olds in I-VET programmes also tend to perform less well in reading, mathematics and science as compared to their peers in general orientation programmes. Among 15 year olds in VET it is particularly those who have repeated one of more grades and those with an immigrant background that tend to be among the low performers. Furthermore, among 15 year olds in I-VET programmes large gaps in the share of low performers are observed in reading in favour of girls and in mathematics in favour of boys. Such gaps, on the other side, among 15 year olds in general education tend to be smaller. Given the above realities, vocational schools and teachers are faced with huge challenges originating from the wide share of low performing 15 year olds who choose to follow a vocational orientation programme. From a wider perspective, low performing 15 year olds appear to be "channeled" to vocational education, leaving the room to general education schools to work with on average more "academically fit" girls and boys.

6. Systemic/institutional equity issues in VET

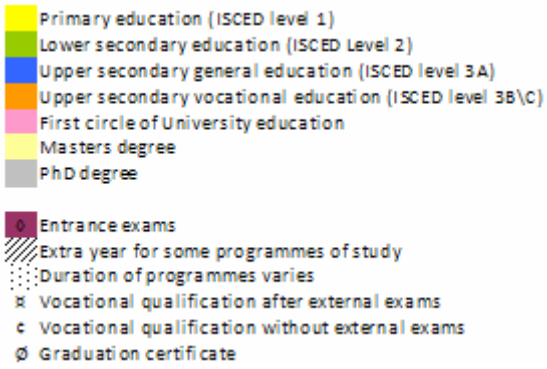
From an institutional point of view, a very basic issue regarding the equity of treatment of students following an initial vocational education path at upper secondary education level as compared to general education students is the existence of established by law discriminations on what they have to formally do in order to "progress" in the ladder of the formal education system. To explore this issue we focused our analysis on the case of Spain, Greece and Poland.

In Spain compulsory education extends to primary (6 grades, pupils aged 6-12) and lower secondary (4 grades, students aged 12-16) education. Those in the lower secondary education who for some reason fail to obtain a Certificate of Compulsory Secondary Education (*Graduado en Educación Secundaria Obligatoria -ESO*), can follow, depending on the educational authorities, an Initial Professional Qualification Programme[46], with the purpose to improve their basic skills as a means of a) attaining the Certificate of Secondary Education based on the successful completion of elective modules, and basically b) developing vocational skills in compulsory specific and general training modules appropriate to a Level-1 qualification, with the prospect of either continue to the upper secondary education at the Intermediate Level of Vocational Training or enter the labour market. Therefore, in Spain the earlier stage of vocational education is in a way "stigmatized" as being for those students who are underachieving in lower secondary education. Students graduating from an Initial Vocational Qualification Programme without also obtaining the ESO can get access to the next stage, which is the Intermediate Level of Vocational Training, part of the upper, post-compulsory, secondary system of education in Spain (ISCED Level 3B, 1,5 to 2 years of study depending on the programme), but not to the 2-year general orientation upper secondary education (*Bachillerato*, ISCED Level 3A) which requires the Certificate of Compulsory Secondary Education (ESO). Therefore, those students who enter an Initial Vocational Qualification Programme without also following the elective modules necessary for obtaining the ESO certificate are essentially following a pathway of limited future choices and academic prospects.

Diagram 2: Paths within Spain's formal education system



[46] Introduced in academic year 2008/9. These programs are financed, regulated and organized by the Ministry of Education or the Autonomous Communities.



Furthermore, those in the Spanish education system who graduate from general orientation upper secondary education (*Bachillerato*) can have direct access to university education via national exams. In contrast, those who graduate from the Intermediate Level of Vocational Training cannot participate in these national exams. From an academic standpoint the principal option of the graduates from the Intermediate Level of Vocational Training (holders of Certificate of Professional Education, i.e. holders of the *Technician* title) who want to advance with their studies, is to continue in the non-university post-secondary level of education, the Advanced Level Vocational Training, which leads to the Certificate of Advanced Technician (*Título de Técnico Superior)*. It is only after obtaining this certificate when vocational education students can secure direct access to the first cycle of university education in the respective field of their prior vocational training. What is however interesting to note is that when there are not enough places in an Advanced Level Vocational Training programme, then preference is given to those applicants with a *Bachillerato* certificate who have followed the corresponding specialty at school instead of applicants from the Intermediate Level of Vocational Training of the same specialty studies. This preference highlights a predisposition that general upper secondary education is preparing better its students for advanced vocational training than the intermediate vocational education! As it is pointed out in a recent report about the VET system in Spain (ReferNet Spain, 2009), in Advanced Level Vocational Training "each of the vocational training courses includes subjects that are the equivalent of the Bachillerato track that is considered to offer the ideal preparation" (p. 58). Finally, for those students and their families who wish their child to follow tertiary education level (ISCED level 5B) studies in an occupationally oriented field the fastest and the most academically supportive path is through general education at secondary education years, i.e. through *Bachillerato*.

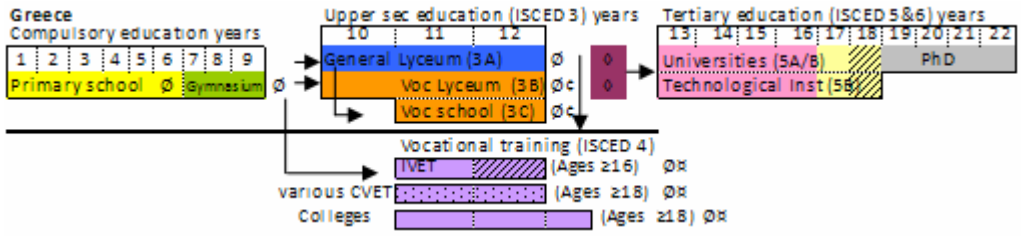
As was already pointed out, in the case of excessive applicant numbers in Advanced Level Vocational Training programmes priority is given to the general upper secondary school graduates (*Bachillerato*) instead of the Intermediate Level of Vocational Training graduates. This striking difference in the "status" of students of the same specialty orientation who have graduated from *Bachillerato* as compared to the Intermediate Level of Vocational Training originates from the curricula of these two types of schools. The *Bachillerato* programme of study lasts two years while at the Intermediate Vocational level the duration of the programmes, until quite recently, varied between 1300 to 2000 hours, i.e. it could be less than two years. This indicated a predisposition that some vocational specialties are less demanding in terms of both formal school-based teaching and learning and work-place, practical, learning than others. Reforms to the system of vocational education that were expected to be applied in full by the academic year 2009-10 introduced the requirement for a common duration to all vocational specialty curricula (2000 hours). However, vocational programmes still vary in the hours they are required to devote to formal school-based education (1300 to 1700 hours) and work-place training (300 to 700 hours, 10-20 weeks in a company after having completed the school-based courses).

Furthermore, while at a work-place training module, students have to be present during the whole work shift as all normal employees do, meaning that they may also be asked to get involved in normal production activities with no meaningful relationship to the aims and rationale of their training. Under this perspective, it is hardly surprising that at the end of the day the holders of *Bachillerato* are believed to be better prepared for higher vocational studies than their peers with a *Technician* title. In any case, the curricula of the Advanced Level Vocational Training programmes also include a compulsory work-place training module (varying from 350 to 750 hours) and therefore those who do

not already have work-place experiences (that is those with a *Bachillerato* title) can get them in the context of their advanced vocational studies.

In *Greece* students who fail to obtain a lower secondary education certificate (Gymnasium leaving certificate)[47] do not have any alternative option within the formal education system but to repeat classes. Often, many among those students who are underachievers in Gymnasiums, after obtaining their certificate are choosing not to go to upper secondary education but enroll to a specialty programme offered by Vocational Training Institutes (ISCED level 4), leading to a *Vocational Training Certificate Level-1*. This track essentially closes down their options regarding access to tertiary education, general or vocational. On the other side, some underachievers when getting a Gymnasium leaving certificate and reviewing their options in the upper secondary education they choose to enroll to a Vocational Lyceum (EPAL, ISCED level 3B) instead of a General Lyceum (ISCED level 3A) which is academically oriented and much more demanding. Following a Vocational Lyceum does not objectively close down their chances of accessing tertiary education after graduation, particularly its vocationally oriented Higher Technological Educational Institutes (ATEIs, ISCED level 5B). Because, however, access to Tertiary Education requires participation in the highly demanding national exams, General Lyceum students are in a much better position in succeeding to get the marks needed for entering a University or ATEI than EPAL students. EPAL students or General Lyceum students after the completion of their first grade can enroll to a Vocational School (EPAS, ISCED level 3C) for a 2-year programme of study that is predominantly vocational and is leading to a *Vocational Training Certificate Level-3.* However, graduates of Vocational Schools cannot participate in the national exams securing a seat in a University or an ATEI. Overall, therefore, a student following the general education stream can easily turn to vocational training at ISCED levels 3, 4 and 5 if she wishes doing so but for someone in the vocational stream it is becoming increasingly difficult if not impossible to turn to a general/academic education track.

Diagram 3: Paths within Greece's formal education system



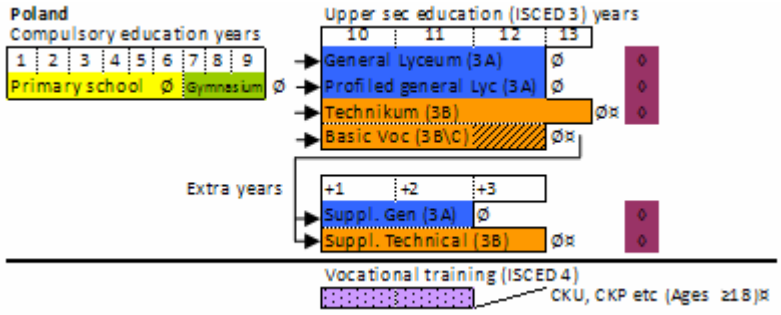
Furthermore, for someone who, after taking the national exams, is admitted into an ATEI instead of a University (s)he can get a Bachelors degree which is equivalent to a University Bachelors degree, (s)he can also get a Masters degree, but she cannot obtain a PhD, because PhD degrees are, by law, conferred only by Universities. In order to become member of the academic staff of an ATEI you have to have a PhD. The implication is that the educational path followed by the current and prospective academic staff of the ATEIs can be exclusively through general/academic education. For someone following an exclusively vocational path it is impossible to obtain a PhD and therefore teach at an ATEI.

In *Poland*, similarly to Greece, the choice of the type of curriculum (general/specialized or technical/vocational) is made by the students and their families after the 9 years of compulsory schooling (6 years in primary school and 3 years in Gymnasium, ages 13-16). Only upon the completion of the Gymnasium students can move to a 3-year general upper secondary education

[47] in Greece education is compulsory for those aged 6 to 15 (9 years of compulsory schooling), that is all young people have to spend 6 years in a primary education school and 3 years in a gymnasium, which is the only type of lower secondary education school.

Lyceum (Liceum ogólnokształcące, ISCED Level 3A, ages 16-19), or to a 3-year "specialized" upper secondary education Lyceum (Liceum profilowane, ISCED Level 3, ages 16-19[48]) both preparing students for the matriculation examinations necessary for admission to tertiary (higher) education. Those attending to a 4-year Technical school (Technikum, ISCED level 3B) can also participate in the matriculation exams.

Diagram 4: Paths within Poland's formal education system



However, those who after Gymnasium choose to enroll to a 2-3 years basic vocational school (Zasadnicza szkoła zawodowa, ISCED level 3C) cannot sit the matriculation exams after graduation. They have to first graduate from a 2-year supplementary general education school (uzupełniające liceum ogólnokształcące) or a 3-year supplementary technical school (technikum uzupełniające) in order to be allowed to take part in the matriculation exams. Therefore, the choice of basic vocational school or a technical school means that students have to spend at least one year more in upper secondary education, as compared to general and specialized lyceums, before being able to take the matriculation exams, leading to higher education vocational studies in a higher vocational school[49]. Being a student in a higher vocational school means that you can get a Bachelors and a Masters Degree equivalent to those conferred by Universities in Poland but you cannot get a PhD which can only be conferred by Universities.

Other systemic level conditions having to do with the qualifications and pedagogic competences of VET teachers may have an impact on the quality of treatment of vocational education students. Regarding teacher qualifications in VET schools in *Greece*, not all teachers employed are required to hold a university/higher technological institution degree and therefore they do differ in this respect from most of their colleagues in general education schools. In Vocational Schools, for example, some vocational specialty teachers hold only upper secondary education qualifications and are employed on the basis of their expertise developed at work or through non-formal training, or their prior teaching experience in vocational schools. On the other hand, no teacher in General Lyceums can be hired unless (s)he already holds a tertiary education degree relevant to a specific subject-matter and has some prior formal education in pedagogic issues. This difference in entry level prior educational qualifications may result in a high level of variability in the professional but also teaching competencies within the teacher population of VET schools and programmes and between the teacher populations in VET schools and general education schools. Of particular importance here is

[48] This type of school is focused on general education but is also providing general vocational education organised in 14 occupational "profiles". The teaching hours devoted into vocational courses represent only 13% of the total teaching hours and the rest 87% is devoted to general education courses (RefNet Poland,2009, p.38). This school does not lead to vocational qualifications (with or without external exams), so it should be considered as general school with some vocational orientation rather than vocational school. In contrast, in the technical schools the balance between general and vocational course time is 64/36% and in the basic vocational schools 47/53% (o.p.).

[49] The higher vocational schools award the licencjat vocational title which corresponds to the first-cycle qualification of university education.

that among the teacher population in VET schools a number of teachers have not received accredited pedagogic training.

In *Poland*, until 2009 VET teachers could also be people with professional expertise in a specific occupation but not any accredited pedagogic training or advanced level of prior formal education in the respective field of expertise. Since 2009 a new legislation came into force in order to address the problem of variability in the level of teacher qualifications in VET. This legislation increased the qualification requirements for teachers in basic vocational schools, demanding from them to hold at least higher vocational education and pedagogical preparation. This change is envisaged to contribute to a better quality of the vocational education and to allow for better preparation of pupils for external exams validating vocational qualifications (Refnet Poland, 2009, p. 25).

Similarly, in *Spain* teachers for all types of courses (general/theoretical, vocational/theoretical and vocational/practical) must posses a higher education degree. However, in cases where there are no teachers with this level of qualifications it is possible to employ as teachers people with relevant to a specialty professional experience who are holders of an Advanced Technician[50] certificate. Furthermore, in the context of work-place training modules, the company personnel appointed to act as "tutors" to the students while at work are not required to hold a specific minimum level of accredited professional qualifications or have any formally accredited pedagogic training. This implies that some students may be appointed to a work-place tutor with low educational qualifications and no teaching experience, let alone qualifications.

[50] Obtained after completing the advanced level vocational training. This certificate entitles its holders to enrol to university level studies without exams.

7. Issues of equity of treatment at the level of school

Within the wider context of accumulated educational disadvantage, accompanied by socio-economic disadvantage, which is experienced by vocational orientation students, VET schools, teachers and administrators have to ensure that their students are getting the best possible education and that they are not offered education of lower quality than this of students in general education schools. Important factors in ensuring *equity of treatment* at school level are related to the specific school culture, the school leadership, and the quality and professionalism of the teaching staff. Generally, equity of student treatment *within* a school but also *across* schools in a region poses huge challenges because on the one hand schools are expected to conform to the nationally or regionally set curriculum demands and on the other they have to work with a student population which may be varying considerably in terms of the socio-economic and ethnic/cultural background of their families as well as academic performance. As Teese, Field and Pond have pointed out, reviewing equity in education in Spain,

> the curriculum is a source of cognitive and implicit cultural demands which assume that certain generic qualities have matured in students, such as capacity to work together, to pay attention, to respect teachers and other learners, to want to succeed at school, to be proficient in language skills and to be self-confident. Such qualities are not uniformly present in all pupils at the same age or time, and there is therefore a gap between what the curriculum assumes and the reality of the students in any given classroom.
>
> Teese, R., S. Field, B. Pont (March 2006 version). *Equity in Education Thematic Review: Spain Country Note*. Paris: OECD, p.33.

In vocational education schools and programmes with commonly high concentration of students with pre-existing, long established, educational disadvantages particularly in terms of knowledge, skills and attitudes towards learning and academic achievement, achieving equity of treatment becomes a highly complex exercise. This is because some students are likely to benefit more by a school culture that promotes competitiveness between students and emphasizes on achieving high quality academic or vocational standards and attainment targets and some others to benefit more by a school culture that places more emphasis on supporting educationally disadvantaged students raise their standards of performance. In both cases some students are likely to be treated unfairly because excessive focus on student competition and on achieving the commonly high curriculum demands is likely to benefit most a minority of high performing students among the VET school population and excessive focus on support to the majority of low performers is likely to result in the demotivation of high achievers.

In the open-ended questionnaire completed by I-VET students from two schools in the area of Berlin, Germany, it was included a question regarding students' willingness to become "number one" in their class. The question was targeted at the meaning of competitiveness and ambition and how the students deal with the growing pressure to perform. The question can be interpreted as a reflection of the social and school environment and how the students are part of the value system of their environment. The analysis of the students' answers showed that at one of the I-VET schools (OSZ Banks and Insurances) most of the students wanted to be a "number one" student (no difference between the two genders). They justified this with their ambition, motivation and self-esteem. Those who did not want to be "number one" student wrote comments such as these: "there is always someone better than you", and "private issues become more important". In contrast, at another I-VET school (Ernst Litfass Schüle) most of the students reported that they did not want to be number

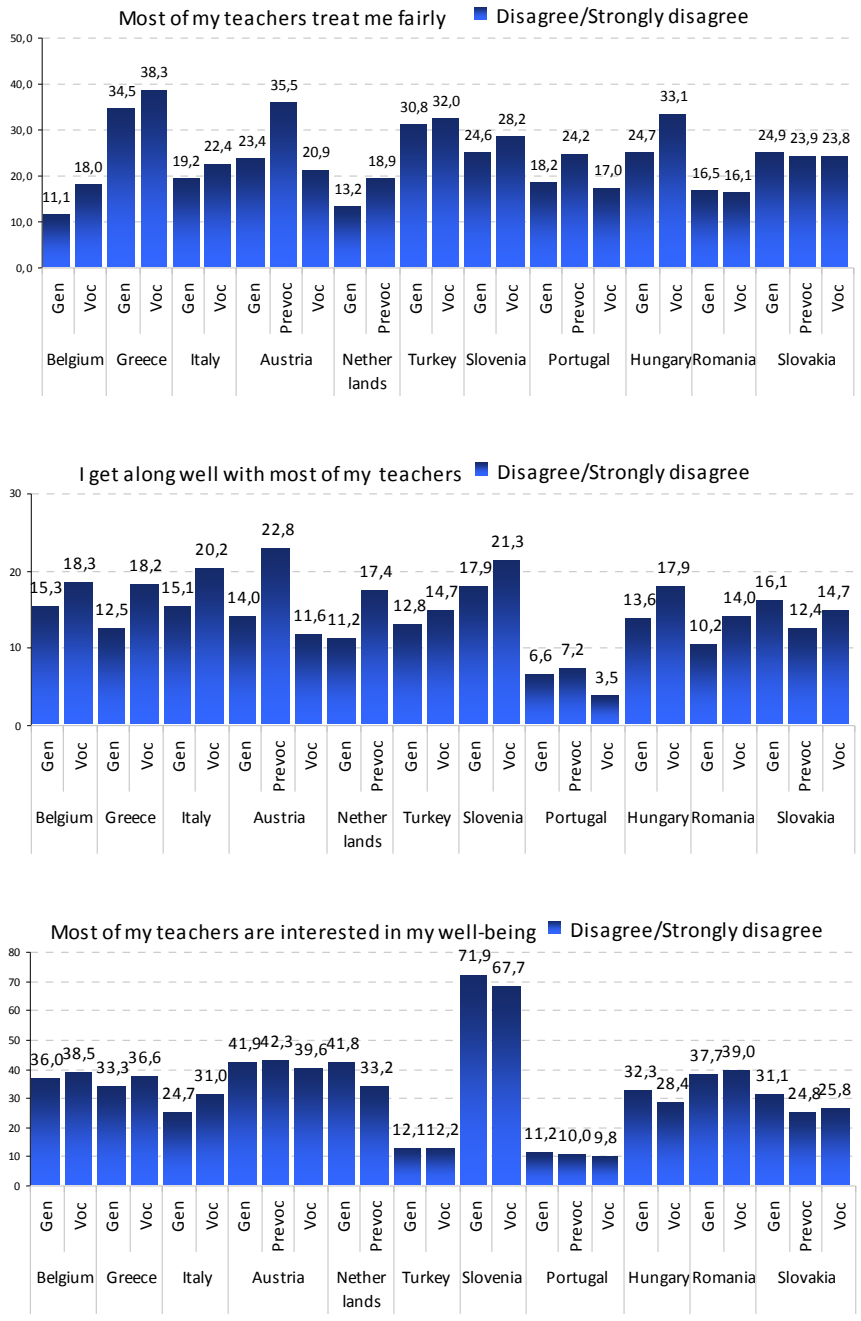
one in their class. There were a lot of statements offered to justify this decision, among them: “I don’t have to be that”, and “there is always someone better than you”, and “you have to be content with what you have”. Interesting in regard to dealing with social values are some other students’ statements, even if they sometimes represent the opinion of just one person: “too much pressure, if once you are number one”, “my own performance counts, not the comparison”, “you don’t need to be the best to be successful”, “to be the best, doesn’t mean to be lucky”, “I, myself know what I am able to do”, “competence is not reflected in scores”, “to be the best means to have someone who envies you and it has a bad influence on the social climate of the class”, “school is important but to have a score average of 2 is enough. The company for me is in the first place”. Interesting as well are the statements to justify the decision to be the best: “Personal ambition”, “it pays off later. You have better chances in the future”, “good performance, good job, good income”, “companies appreciate it”, “it’s good for your application”, “you stand out from the crowd”. The statements in regard to be the best were all offered by male students; female students, if they don’t want to be the best usually commented: “I don’t need to be that”. The high differentiation between students’ reported willingness to become “number one” in their class in the first I-VET school as compared to the other is indicative of a wider school climate, one that promotes competitiveness and one that which does not.

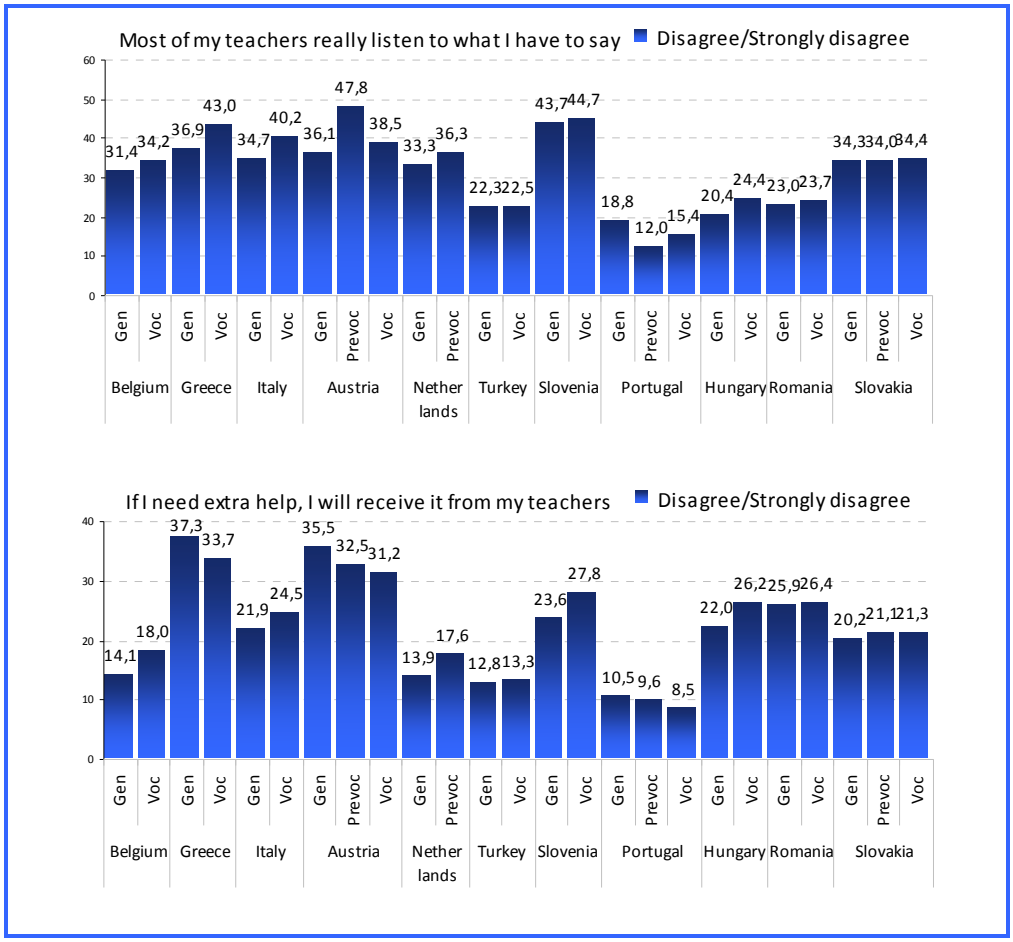
According to a regional VET school advisor in Greece, some schools or teachers who insist on excellence focus their efforts to raise the academic performance of those who are already motivated learners and pay little attention to those who are low performers or have no aspirations of participating to the national exams leading to a tertiary education institution. This approach, which is not always explicitly stated or reflected upon in a systematic way at school level, can lead to the creation of huge discrepancies in school performance between the high and the low achievers for the benefit of a small minority of high achievers. On the other hand, VET schools and teachers who are neglecting the needs of the high achievers to serve the needs of the majority, that is the low achievers, run several risks. A major one is that they have to stop following the commonly fast pace which the centrally defined curricula and timetables sets to all schools in Greece. Such a decision is not acceptable by the central education authorities on the grounds that it can potentially create VET schools for the “bad” and schools for the “good” students. According to this school advisor, VET schools and teachers should tackle this problem by focusing on the needs of the individual student, aiming to help him or her raise his/her standards of achievement to the next level. Such equity of treatment issues, as well are their implications, are largely unexplored in vocational education.

Regarding equity of treatment issues having to do with the psycho-pedagogic climate between teachers and students, the FARE qualitative research did not reveal any systematic biases towards specific groups of students, according to their gender, cultural or socio-economic background. As it is characteristically stated in the national report for Spain, in the different levels of vocational training studies, equity issues are barely recognised, or are not seen to be especially relevant. The schools, teachers and students themselves (male and female) showed no feelings of rejection or discrimination by the general climate of the institutions.

On its part, the PISA 2009 student survey offers some valuable data relevant to issues of student treatment which we explore in the following paragraphs. We begin our analysis with possible differences in how teachers treat their students as perceived by 15 year olds in general vs vocational orientation programmes (see charts in the box below).

What 15 year olds believe about their pedagogic relationship with their teachers by programme orientation per country (Raw data source: PISA 2009)





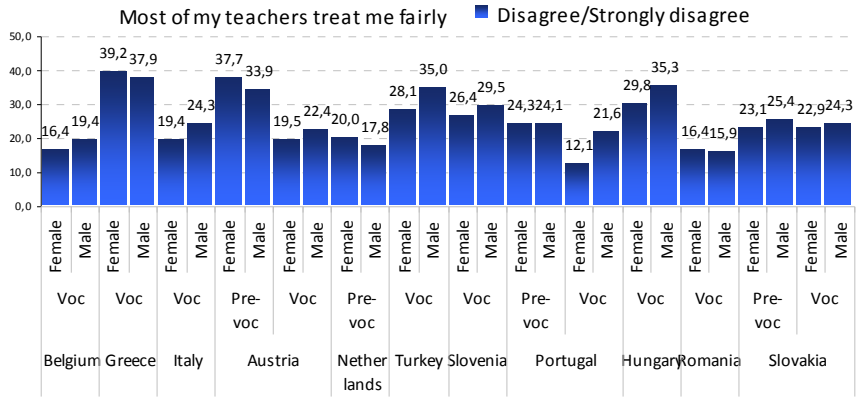
Based on the statistical analysis of the data presented above, out of the 11 countries in the sample in 7 of them were established differences on how 15 year olds perceive their pedagogic relationship with their teachers, with proportionally more VET students tending to express negative views as compared to general education students in one or more indicators. In only 2 of the countries in the sample, namely in Slovakia and in Portugal, comparatively more general education students expressed negative views as compared to VET students, but this was true in just one indicator. Finally, in Turkey and in Romania there was no difference between the share of those with negative views among VET and general education students in all five indicators.

Specifically, in *Italy* proportionally more VET students, as compared to their peers in general education, feel that they are not treated fairly by their teachers, and also that they do not get along well with them, that their teachers are not interested in their well being, that they do not listen to what they have to say and that they do not receive extra help in case they need it. In other words, in all five indicators of quality of the pedagogic relationship between teachers and students included in the PISA 2009 student questionnaire, proportionally more VET students in Italy tend to express negative views as compared to general education students. In *Belgium* this was true regarding fairness and help and in the *Netherlands* regarding also fairness and getting along well. In *Austria* it is particularly in the pre-vocational education where more students feel that they are not treated fairly, that they do not get along well with their teachers and that they do not listen to them. In *Greece* proportionally more VET students, as compared to their peers in general education, feel that they do not get along well with their teachers, and the teachers do not really listen to them. In Slovenia, only in the case of help received and in Hungary in teachers' fairness.

On the other side, in the case of the interest in students' well being, in three countries in the sample, namely *Netherlands*, *Slovenia*, *Slovakia*, proportionally more general education students expressed negative views as compared to VET students. Perhaps this may be a result of feelings of pressure to succeed in very demanding academic tasks. Finally, less pre-vocational students in Portugal feel that their teachers do not listen to what they have to say to them as compared to general education students.

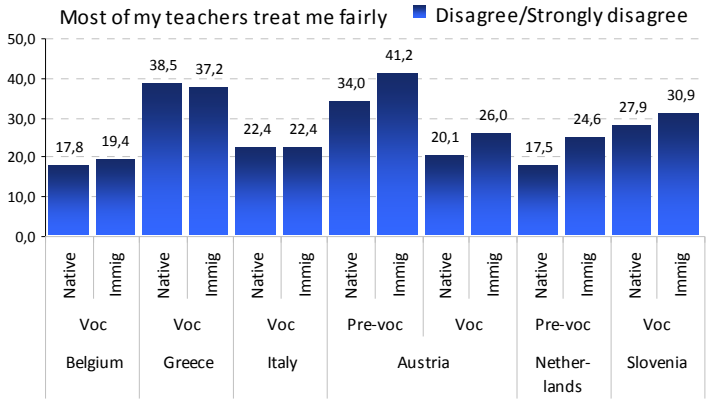
Turning now our analysis on gender differences in the students' perceived fairness of treatment by their teachers within vocational education, it was only in Italy among the countries in the sample where more boys (24,2%) felt that they were not fairly treated as compared to girls (19,4%) (see chart below).

Chart 35: 15 year olds' perceived fairness of treatment from their teachers by gender and vocational or pre-vocational orientation per country (Raw data source: PISA 2009)



Finally, regarding students' immigrant background no statistically significant difference in perceived fairness of treatment could be established among VET students (see chart below).

Chart 36: 15 year olds' perceived fairness of treatment from their teachers by immigrant background (native or first/second generation immigrant background) and vocational or pre-vocational orientation per country (Raw data source: PISA 2009)



So far our analyses and discussion on equity of treatment at school level were focused on the issues of: a) school culture in relation to the promotion of competition between students and the emphasis on high achievement as compared to low level of competition and low emphasis on high performance, and b) on how students perceive their pedagogic relationship with their teachers. In the context of FARE's qualitative research, specifically in Greece, another dimension of fairness of

treatment at school level was also revealed. This has to do with important discrepancies in the quality of training offered within a school to students in different specialty programmes. I-VET schools, unlike academic orientation schools, often have to cater for a wide variety training needs for specialties ranging from health and care specialties to mechanical and electrical engineering to banking and sales. In this respect, their obligation to treat all students irrespective of their chosen specialty with fairness and inclusiveness demands constant alertness on behalf of the school administration in the ways school resources of any kind are distributed to each specialty programme on offer. Schools, as any kind of organization, have limited resources and it is almost a given that various stakeholders and pressure groups from within or "outside" the school (from regional and local school administrators, political schemes, professional associations and employers and employees unions, to parents, specialty teachers, or students), will make use of whatever power or resources they have at hand to influence resource allocation and management. In the context of sometimes antagonistic struggles for school resources, conditions which threaten students' fairness and inclusiveness of treatment may be established. Systemic level discriminations which can be established through variability in the standards and demands described in centrally set vocational specialty curricula or nation-wide political initiatives and funding mechanisms can also "interact" with regional, local and school level decision making regarding resource allocation to vocational specialties. For example, in Spain vocational programmes use to vary in the hours they are formally required to devote to school-based education (1300 to 1700 hours) and work-place training (300 to 700 hours, 10-20 weeks in a company after having completed the school-based courses). This variation in the formal education and training requirements for the successful completion of a vocational specialty programme can be interpreted by VET schools or local and regional authorities as implying that some specialties are more academically demanding than others and lead them to place more emphasis (more school resources, more teacher training etc) on the former, thus creating the ground for variability in the quality of treatment of students according to their chosen specialty programme.

Another example of how centrally set curricula can "interact" with local school conditions and priorities to create the ground for unfairness of treatment at school level towards students in different specialty programmes comes from Greece. EPALs, the upper secondary vocational schools which attract the largest share of VET students in Greece, are not allowed by law to offer work-place training. All of their programmes have to be delivered in formal school structures, that is ordinary schools and associated laboratory structures (SEKs); as we shall see this can have important implications regarding the fairness of treatment of students following different specialty programmes. After several whole-day visits in an EPAL in Greece it gradually became "evident" to the FARE researchers that although this particular school was committed to quality training irrespective of vocational specialty, some specialty programmes offered much better quality training than others. The reason was relatively simple but went largely unnoticed either by the school administration or the specialty teachers. Some of the laboratories located in the nearby SEK were organised in such ways as to offer specialty training which was closely related to the demands of a real-life workplace. In some other laboratories the training offered was only remotely connected to the realities of workplaces. For example, the Mechanical and Vehicle Engineering lab resembles a small vehicle repairs enterprise, with its professional sets of tools, its hydraulic car lift, parts and the rest. The school has contacts with auto and moto dealers who supply the school for free with recent vehicle systems or sometimes whole vehicles for training. Furthermore, the lab staff members with their students occasionally offer, for training purposes, free service to vehicles owned by individuals in the area. Similarly, the Cooling Installations lab offers a teaching and learning environment which resembles this of a work-place. The lab is fully equipped with parts, instruments and tools and the students work in projects that require the performance of work tasks that are similar, if not identical, to those undertaken by a fully competent technician in a real-life work-place.

In contrast, the quality of training offered to students following the “Nurse Assistant” specialty, not just in the EPAL school which participated in our research but in all EPAL schools around Greece, is problematic. The nationally set curriculum allocates only 3 teaching hours weekly, out of a total of 23 hours weekly devoted to the 6 specialty courses, to laboratory-based training. It is characteristic that only in the “nursing” course students have to spend 3 hours weekly doing laboratory-based activities. In the other five vocational courses of the “Nurse Assistant” specialty, that is “surgery techniques”, “basics in gynaecology, obstetrics and paediatrics”, “basics in neurology and psychiatry”, “basics in pathology”, and “basics in anatomy-physiology” the students are not getting any lab-based training. All lessons are done in a classroom, which in the case of the EPAL which participated in our research, has been equipped with lots of learning materials such as human anatomy maps and a human anatomy model. Members of the teaching staff in this EPAL doing these courses are fully trained doctors and nurses, that is the students learn how to become nurse assistants by proper professionals in the field. The huge difference between the students who get training to become nurse assistants and the students following an engineering sector specialty is that the former cannot do any kind of practice in tasks that are even remotely similar to these performed by professional nurse assistants in hospitals or other health-related workplaces. In order to do this they would have to get training into real workplaces and deal with real-life situations and patients. However, the EPALs do not provide such kind of on-the-job training; they are not allowed to do so because the laws and regulations governing the operation and curricula of EPALs specify that all students’ training should be done in SEKs. These centrally-defined conditions limit considerably the quality of the training offered to prospective nurse assistants in EPALs and in effect their professional capacities and future employability. At the level of everyday school teaching and learning this has important implications, because the teachers are struggling to motivate their students who cannot really relate what they learn to a kind of meaningful practice. It has also profound implications regarding the fairness with which the students of different specialties are treated at school-level.

Discrepancy between the vocational training received by EPAL students and the job demands in real-life work-places is also experienced in other specialties primarily in the services circle of EPALs. In our discussions with the EPAL teachers doing courses to students following the “Nursery/Kindergarten assistant” specialty at the school involved in our qualitative research it was evident their agony about the quality of the training they can offer to their students given that they are not allowed to organise students’ practice into real nurseries or kindergartens operating in the area. These teachers organised a classroom into a place resembling a nursery/kindergarten room, with baby models, lots of coloured papers, pencils, toys and the like. What were missing were the real toddlers and pre-school boys and girls. During one of our visits to this school, we participated as silent observers into a series of small performances involving singing, dancing and story telling that were prepared by groups of students as part of their project-based training. Some groups had even create hand-made story books decorated with drawings and collages, they had coloured their faces or wear funny dresses to support their performances. They did their performances to an imaginary audience of small boys and girls but the real audience was consisted of their teachers and us. Until their graduation from EPAL they will never actually have the opportunity to perform in front of children or have any kind of regular practice as assistants in nurseries or kindergartens.

Mixing school-based vocational training with on-the-job practice poses different but no less important issues of equity of treatment at school level. This is because school administrators and teachers who organize and supervise on-the-job training have to ensure not only that all the students do find the right workplace to practice their specialty but also that the quality of workplace training follows some clearly defined quality standards and that the students are not being exploited as low cost labour force. What is also of paramount importance regarding equity of treatment in on-the-job practice is that the workplace personnel who undertakes the task of trainer, is not only fully qualified in the specialty of interest to the trainee but also that has some pedagogic training too. At system

level the lack of a clear regulating framework may leave much room for the establishment of great variation in the quality of on-the-job practice and hence of inequalities in VET students' treatment. In Spain, for example, in the context of work-place training modules, the company personnel appointed to act as "tutors" to the students while at work are not required to hold a specific minimum level of accredited professional qualifications or have any formally accredited pedagogic training. This implies that some students may be appointed to a work-place tutor with low educational qualifications and no teaching experience, let alone qualifications.

School staff or local and regional VET administrators responsible for establishing links with the world of work and managing on-the-job practice programmes are those who in effect can ensure that their students are treated fairly and with inclusiveness on the workplace ground. In the world of work the priorities often are not those of fairness in treatment and inclusiveness. Girls in traditionally "masculine" specialties such as mechanical engineer or boys in "feminine" ones such as those in the fields of health and care may face in full form the effects of workplace stereotyping such as mistrust in their capabilities because of their gender and this can have a very negative impact on what trainees actually "learn" in the workplace and how they feel about it and about themselves as future professionals in their specialty. Students with an immigrant background are also in danger of facing incidents of xenophobia in the workplace. The logic of doing on-the-job practice as part of the formal requirements for the completion of a vocational education programme is for the students to learn their specialty by doing, something which the workplace is often more capable of offering as compared to school, but it should never be taken for granted that all things which may be considered as "normal" or "ordinary" practice in workplaces, either because of tradition or because of regulating frameworks, is beneficial for the learning process of the students.

8. (Re)learning to love learning in VET

In the context of FARE framework we argue that "learning to learn" has less to do with knowledge and skills and more with dispositions towards learning new things. We propose that "learning to learn" should be understood as *learning ethos*, that is as a system of guiding ideals and beliefs (individual and/or collective) focusing on the intrinsic value of learning, relatively independent from its (always co-existing) instrumental uses and the extrinsic motivations associated in achieving pragmatic aims, as learning for learning's sake. The *Love of Learning* perhaps describes best the essence of learning to learn as opposed to the *Hate for Learning*, which epitomizes everything that has nothing to do with learning to learn. The individual who is "learning to learn ready", is not the one that has certain super-ordinate, transferable skills and some fundamental knowledge that enable her to learn about everything she wants. It is not, that is, a self-directed, self-regulated, autonomous "learning machine". Instead, she is truly passionate about learning.

As we argued in the introductory chapter, the school is a place where it gradually becomes very clear to the young children that they should no longer learn new things primarily driven by their curiosity and interest about the world; instead, they have to learn through the channels of structured and repetitive classroom practices on a day to day basis. They learn new things in different ways than at home or at the playground but also they learn a lot of things about the special value of learning new things at school and for the school. During the process some children loose the appetite for new learning as this is recognised and assessed at school, become disillusioned or get alienated and leave school early. I-VET schools and programmes are often expected, either explicitly or implicitly, to act as a last resort for the formal school system to attract those students who the system managed to disillusion and alienate during compulsory school years. One of the consequences of the above is that the dominant public image about I-VET is often described in negative terms as compared to academic orientation schools and programmes. As the head of the VET authorities in the region of Heraklion, Crete, Greece, put it during our workshop, vocational education and training is the "poor relative" of the education system in Greece and VET schools are "last choice" schools. In the FARE national report for Spain it is stated that the dominant public image of I-VET is this of "the step child of Spanish education". In the FARE interviews in Barcelona, school managers expressed the view that vocational training, despite its great importance, is "undervalued". The VET teachers who participated in the FARE research in Germany shared the view that the image of VET in the public is still less positive than this of secondary academic schools and that that their work is not sufficiently recognised by the public.

As we have shown, the analysis of the PISA 2009 raw data generally confirm the view that was often expressed by VET people, teachers and administrators during FARE's qualitative research that the student intake of vocational orientation programmes and schools differs considerably from the student intake of general orientation programmes and schools. The families of students who follow vocational orientation schools tend to be of much lower socio-economic and cultural status than the students' families in general orientation programmes. Furthermore, 15 year olds in I-VET programmes also tend to perform less well in reading, mathematics and science as compared to their peers in general orientation programmes. Among 15 year olds in VET it is particularly those who have repeated one of more grades and those with an immigrant background that tend to be low performers. From a wider perspective, low performing 15 year olds appear to be "channeled" to vocational education, leaving the room to general education schools to work with on average more "academically fit" girls and boys.

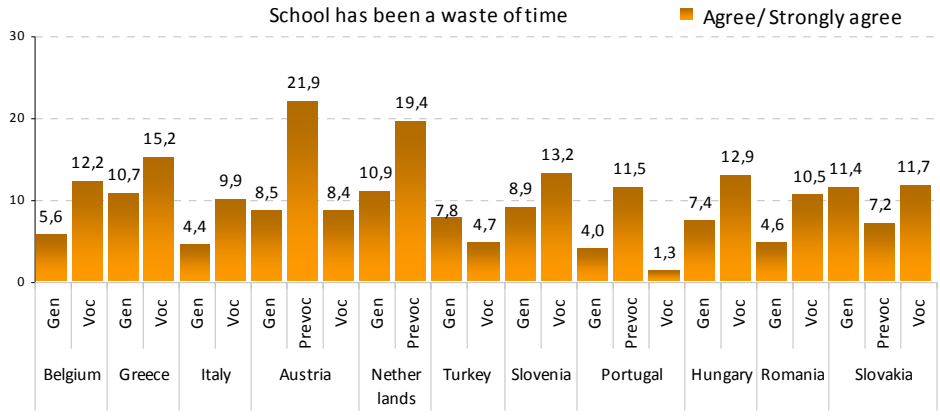
In our interviews with VET teachers and administrators it was often expressed the view that a "channeling" process of low academic performers in I-VET is effectively performed during the last years in compulsory education, the Gymnasium years, where some teachers use to "label" negatively those students who have less than average performance in core academic subjects and implicitly or explicitly "recommend" to them and to their families the vocational path instead of the academic one. In Barcelona, Spain, an important issue that emerged during discussions with teachers is the failure of teachers who are currently responsible for guiding students in the ESO (compulsory secondary education) to inform the students or encourage them to do vocational training. They noted that in many cases, apart from them not knowing the training possibilities of vocational education, they transmit to the students the message that "whoever follows vocational training studies is not suited for anything else" or "better to do vocational training than to enter the labour market". Similar problems are reported for Germany (see Muñoz, 2007).

One of the major implications of segregation processes leading students to different education paths according to their prior academic performance in core subjects is that (huge) inequalities of outcomes accumulated during the pre-school and compulsory school years are not evenly shared between different types of programmes and schools and that it is mainly vocational and pre-vocational programmes and schools that are faced with the huge responsibility to deal with a high proportion students who face problems in reading tasks which require the reader to make comparisons or contrasts based on a single feature in the text, are challenged in mathematic tasks which demand from them to interpret and recognize situations in contexts that require no more than direct inference or is difficult for them to show that they are capable of direct reasoning and making literal interpretations of the results of scientific inquiry or technological problem solving[51]. Given also that a large share of students in vocational orientation programmes and schools are coming from families of low socio-economic background, it is to be expected that the educational staff in these programmes and schools have also to deal with students with comparatively limited resources at home, such as learning materials and extra-curricular learning opportunities.

Nevertheless, the FARE researchers, reflecting upon their discussions with VET people and students and their first-hand experiences gained during their contact with VET schools, came to the conclusion that the greatest challenge faced by VET systems across Europe is not so much the predominantly low level of newcomers in I-VET in basic literacy knowledge and skills as their dispositions towards formal schooling and towards learning. To further explore such dispositional issues we performed analyses on the related 2009 PISA data. As we found out, in many European countries more 15 year olds in I-VET tend to believe that the school had been a waste of time for them as compared to their peers in academic orientation programmes (see chart below).

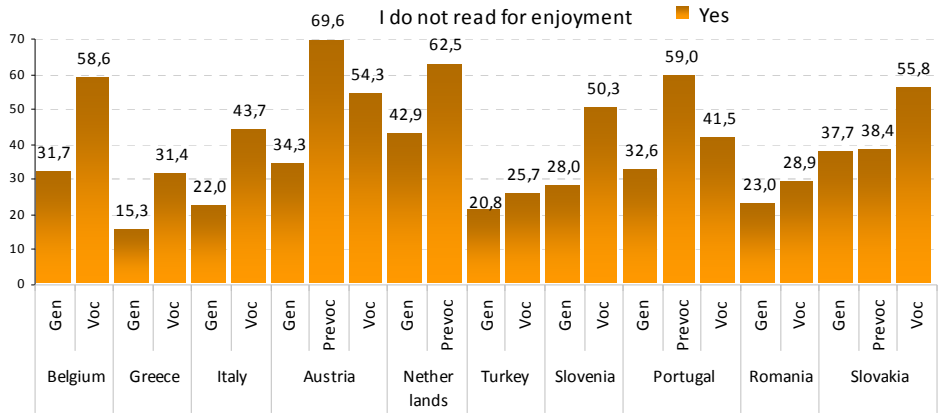
[51] All the above are PISA descriptions of what students can typically do at proficiency level 2 in reading, mathematics and science respectively. For descriptions of the PISA proficiency levels, see PISA (2010, vol. I).

Chart 37: Percentage of students who agree or strongly agree to the statement "School has been a waste of time" by programme orientation per country (Raw data source: PISA 2009)



The results presented above are discouraging in a way but they are also, in a peculiar way indeed, encouraging. It is encouraging for example that "only" around 15% of VET students in Greece believe that the school (meaning basically the whole compulsory school years) has been a waste of time for them considering that around 60% of them were assessed by 2009 PISA as falling below the entry proficiency level 2 in reading. It is something of a good surprise that "only" around 10% of VET students in Romania believe that the school has been a waste of time for them considering that more than 75% of them were assessed by 2009 PISA as falling below the level 2 again in reading. It is excellent news that although around 60% of 15 year olds in pre-vocational programmes in Austria fall below proficiency level 2 in mathematics it is only around 22% of them that believe that the school has been a waste of time[52]. Overall, it is indeed very encouraging that many VET students in all countries examined still believe that going to school is not a waste of time despite that it has so far failed to deliver to them the very basic goods of school learning.

Chart 38: Percentage of students who ticked the answer "I do not read for enjoyment" to the question "About how much time do you usually spend reading for enjoyment?" by programme orientation per country (Raw data source: PISA 2009)



* Hungary was omitted because none of the students in the sample ticket the answer "I do not read for enjoyment" to the question "About how much time do you usually spend reading for enjoyment?"

What is utterly discouraging and potentially very negative for the future lifelong learning prospects of VET students is that many of them, and in some countries the majority of them, do not believe in

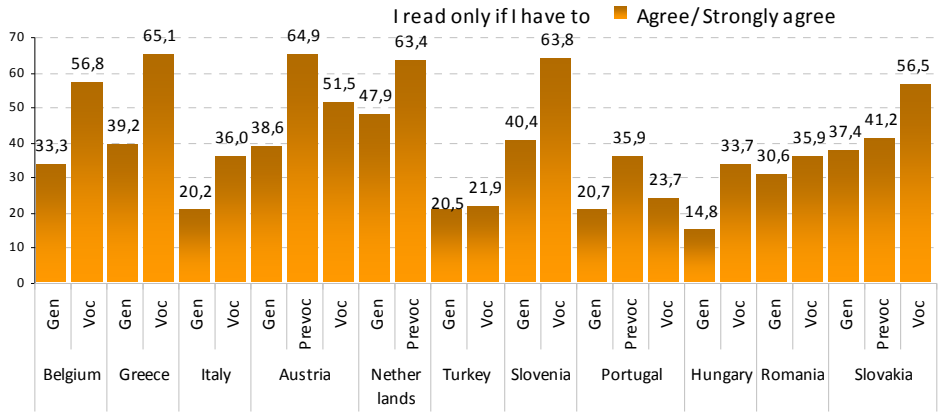
[52] The comparatively low share of students in Turkey following either vocational or general/academic education paths who tend to believe that "school has been a waste of time" should be juxtaposed to the very high level of early drop-outs in this country (almost 38% in 2009 according to Eurostat).

reading just for enjoyment (see previous chart). Needless to say that in most countries that we include in our analysis proportionally much less academic orientation students believe the same.

The above indicate that many 15 year olds "end up" in vocational education having lost in the process of schooling the intrinsic motivation to read anything out of curiosity and pleasure, having lost interest in spending some of their "spare" time reading a book or a newspaper or a magazine just for the joy of it, having lost in a way their love towards one of the most basic and fundamental ways of systematic learning in human history, one of the most essential means we have as human race to communicate, to create and dream.

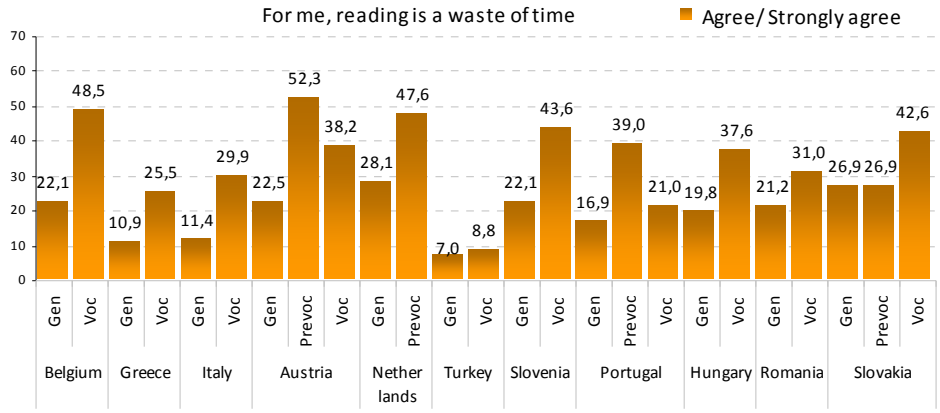
This joy for reading a tale or getting back home with your first set of schoolbooks or browsing through the pages of a comic magazine is apparently long forgotten experience for many of Europe's next generation of technicians, specialised craftsmen, machine operators, bank clerks, child carers or nurse assistants. In many European countries the majority of 15 year olds in vocational orientation programmes report that they read only if they have to (see chart below). This means that they read only if there is some kind of the usual external motivations which the system of schooling (or of parenting) exploits to make children spent time studying, such as good marks, the dream of a good job with lots of money or a new games console.

Chart 39: Percentage of students who agree or strongly agree to the statement "I read only if I have to" by programme orientation per country (Raw data source: PISA 2009)



The dualisms widespread in the European traditional thought between "mind" and "body", between "theory" and "practice" or between "action" and "thought" are very well crystallised in the architecture of our education systems and their general/academic "as opposed to" vocational paths. The ideological dominance of such dualities suited well the needs of the industrial epoch, capitalist or socialist, in Europe. On the one hand the expanding production lines of heavy industries required more and more semi-skilled and skilled, blue collar, labour force which was expected to come from the vocational education sector. On the other hand gigantic public sector bureaucracies and state apparatuses as well as highly centralised, hierarchical, structures in both the public and the private sector and the rapid expansion of welfare and education systems required the "production" of highly educated "intellectuals", and this was the job of academic education. In today's education systems it is not only the architecture that remains almost intact but also this kind of mentality that still is alive and well. I-VET even in today's "wannabe" knowledge-based societies it is often "promoted" to newcomers as an alternative to the formal academic education, a place where "reading" is not as important for successful learning at school, and in later life, as "doing", where "academic knowledge" is not as important as "practical skills". It is not then so surprising that so many of today's VET students tend to read only if they have to but also that they tend to believe that reading is just a waste of time (see chart below).

Chart 40: Percentage of students who agree or strongly agree to the statement "For me, reading is a waste of time" by programme orientation per country (Raw data source: PISA 2009)



The problem with this disposition is that once you start living by it and gradually alienate yourself from the habit of reading at such an early age it is very difficult to "undo" its impact and its implications later in your life. No "training" in your '30s or '40s can really undo the impact of not being a relatively regular "reader" in your youth. In-between you will most probably have missed critical opportunities for personal development, you will have closed the doors leading to the pursue of a very wide spectrum of studies, you will not even be able to imagine that you can apply for a job requiring even a minimum of some kind of prior "reading". Furthermore, the reality about most of the even "mildly" intellectually demanding things one person can do for a living in today's technologically advanced societies is that they cannot be done solely on the basis of a set of "skills" that you have learned from "practice". It is almost for sure that some kind of reading will be involved, some kind of need to go back to manuals, books, texts published over the web, to legal documents to do some systematic work with them. It is also almost for sure that one day you will have wished more than anything to have learned to love reading something, anything as a matter of fact. Therefore, by tolerating an image and a reality of I-VET as a place that is not as intellectually demanding as academic studies, as an alternative "for those who are not good in letters" as many people say in Spain but also in Greece, we do not do anything better than to hide the failures of the compulsory education under the carpet and to keep reproducing the huge gaps in basic literacy abilities among adolescents (particularly of those coming from economically, socially and culturally vulnerable groups) which are highly unlikely to narrow down once they have left school. However, students' dispositions towards "reading" cannot be explained solely on the basis of schooling practices and learning experiences. The family's cultural background in relation to its economic circumstances may play an important role to the value that students attribute to it. "Reading" is not a culturally "neutral" practice. Some students for example, because of their social and cultural surroundings, may experience pressure and rejection as being "lazy" or "superficial" because they like reading such things as literature or poetry that are not part of their day-to-day school obligations and presumably they are not of any obvious to the family "usefulness" for their child.

As such things go, dispositions are rooted to actual practices and vice versa. Someone who thinks that reading is a waste of time is less likely to pay attention to what is the meaning of what he reads and also is less likely to reflect upon what he does and does not understand from what he reads and make connections with prior knowledge and experiences. As a consequence he is less likely to seek for additional information to understand better or deeper what is still not clear to him. By starting not paying attention to texts, not reflecting upon them, not making connections and not seeking for extra sources, it is likely to develop a disposition that reading in just a waste of time. Under the light of this line of reasoning it is not surprising the finding that in the process of studying proportionally less 15 year olds following vocational orientation programmes as compared to their academic orientation

peers will check to understand what they study, will try to figure out which concepts they still haven't really understood, will make connections with prior knowledge or will look for additional information to clarify a concept (see charts below).

Chart 41: Percentage of students who agree or strongly agree to the statement "When I study, I check if I understand what I have read" by programme orientation per country (Raw data source: PISA 2009)

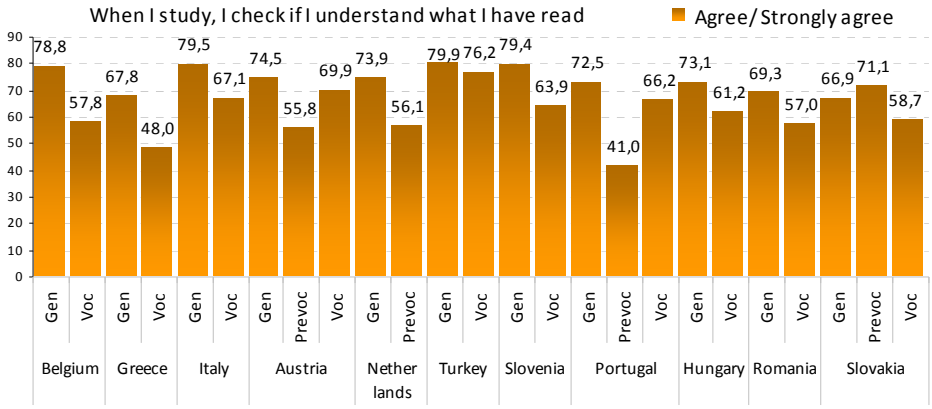


Chart 42: Percentage of students who agree or strongly agree to the statement "When I study, I try to figure out which concepts I still haven't really understood" by programme orientation per country (Raw data source: PISA 2009)

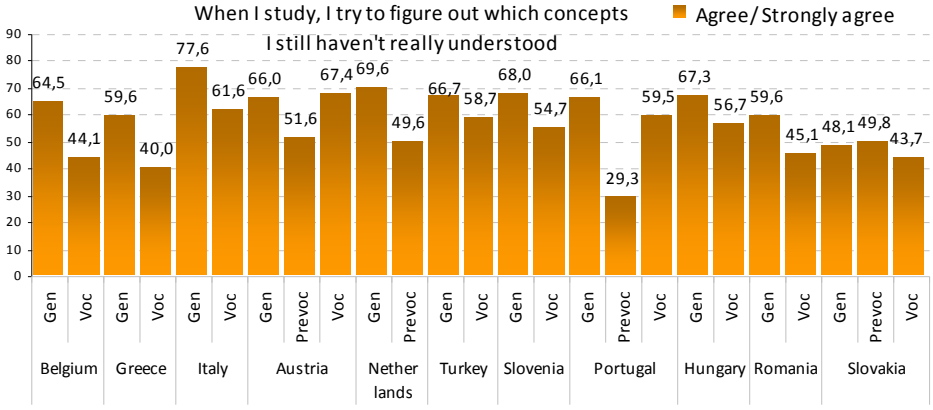


Chart 43: Percentage of students who agree or strongly agree to the statement "When I study and I don't understand something, I look for additional information to clarify this" by programme orientation per country (Raw data source: PISA 2009)

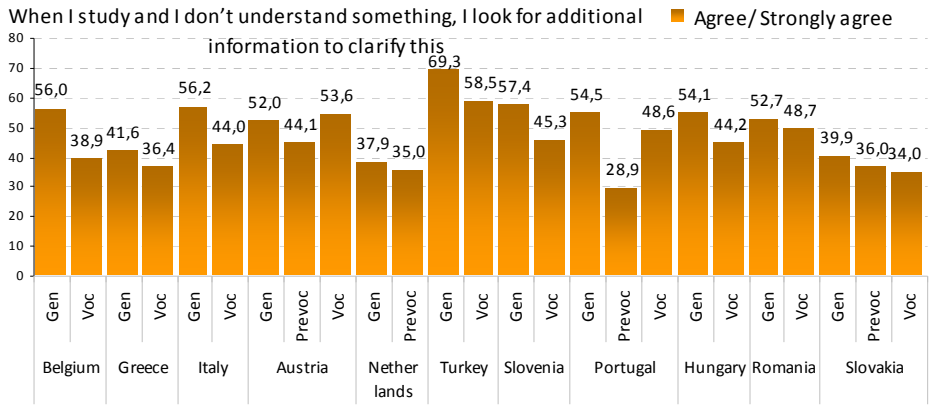
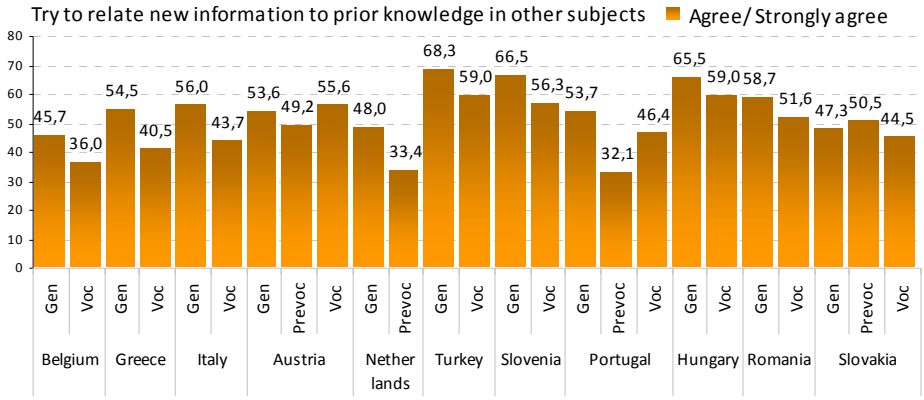


Chart 44: Percentage of students who agree or strongly agree to the statement "When I study, I try to relate new information to prior knowledge acquired in other subjects" by programme orientation per country (Raw data source: PISA 2009)



So far it was only or mainly differences between students in academic and vocational orientation programmes that our analyses of the 2009 PISA data revealed. Differences in the socio-cultural and economic background of their families, in performance in reading, maths and science, in dispositions towards school and reading and in study practices. All these differences, in one way or another, indicate underlying systematic mechanisms leading in effect to a relatively high segregation of students by family background and educational performance. In most European countries studied in this report, it is predominantly students from poorer families and low performing students who tend to follow vocational orientation programmes and students from relatively better of families and better performing students who tend to follow academic orientation programmes. In many ways the above confirmed what many VET people told us about the situation in VET schools and what many VET students and graduate discussed with us or wrote to the open-ended questionnaires they filled-in for us. It is now time to turn to some other findings which show that VET students do not differ from academic orientation students in some respects. It is interesting to note that 15 year olds in vocational orientation programmes are no less (or no more) concerned from their peers in academic education about how what they learn at school relates to life outside the school (see charts below).

Chart 45: Percentage of students who agree or strongly agree to the statement "When I study, I try to figure out how the information might be useful outside school" by programme orientation per country (Raw data source: PISA 2009)

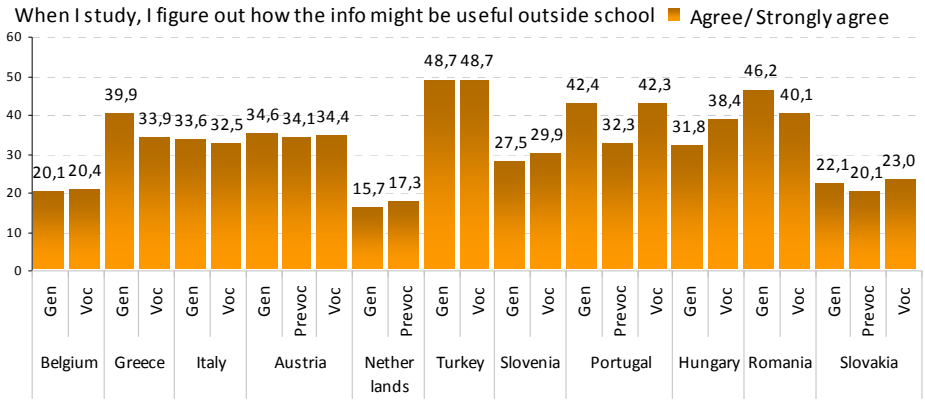
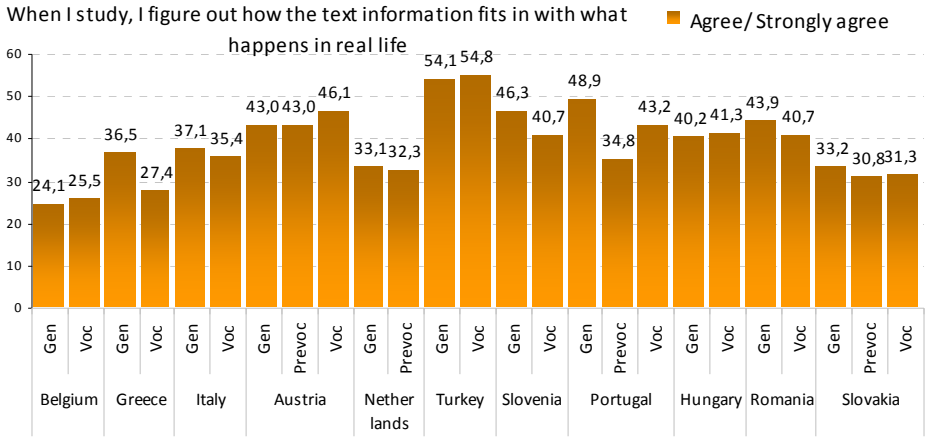


Chart 46: Percentage of students who agree or strongly agree to the statement “When I study, I figure out how the text information fits in with what happens in real life” by programme orientation per country (Raw data source: PISA 2009)



As shown on the two charts above, across countries there is high variation in the share of 15 year olds *irrespective of school/programme orientation* who try to find out what is the relationship between what they learn at school and what happens outside the school. For example, in Turkey about half of the students in both paths try to make such links while in Belgium it is no more than 1 out of 4 who does the same. One reason that such a cross-country variation is observed might be rooted in distinct across countries but relative homogeneous within countries systems of beliefs and patterns of practice. Maybe in Turkey, for example, it is more felt the need for schoolchildren to connect school learning to the realities of the world that surrounds them either because this is something that is systematically promoted in school or because they tend to have a more pragmatic view of schooling as something that has to have immediate relevance to their current life and future prospects. On the other side, students in Belgium may tend to lack interest in making such connections either because they have trust in the system that is offering them education that is relevant to what is happening in the outside world or because that they do not really care about making such connections (could it be an indication uninterested –as opposed to disinterested- spirit for learning?).

9. Further reflections on some broad areas for policy action

It is often argued that the solution to the problem of attractiveness of VET to students and its image to the public to focus on its deeper and closer alignment to the needs, current and projected, of the labour market. The argument goes that if we manage to offer to the VET students such training that enables them to fill-in jobs that are in demand in the labour market then VET will become more attractive both to the younger generation and to the employers. This argument is at any rate only partly convincing given the massive unemployment rates among the highly skilled youth in many European countries. By looking one-sided to mismatches between the labour market needs for skills and the skills that vocational programmes help current students and future job-seekers to develop, by looking for solutions to the labour market supply-and-demand side that is, we become in a way blinded to the huge educational disadvantages of many students who enter into vocational education programmes in secondary education. This problem cannot be tackled by offering training which is more close to the labour market needs. It has to be tackled at its roots, during the pre-school and compulsory school years. The solution to the problem of attractiveness of VET to students and its image to the public passes through compulsory education and the universal achievement of a minimum threshold of performance in essential literacy domains such as reading and writing, as well as already established "new" literacy domains such as ICT literacy. It is only when all compulsory education students upon their graduation have already achieved to master literacy skills at a reasonably minimum level that vocational education, which usually commences at upper secondary education level, will become able to really improve its attractiveness and relevance to both the younger generations and the world of work.

However, it is particularly vocational education that needs something more than a minimum acceptable level of literacy skills from its newcomers. It needs students who do not enrol to its programmes only because they want to be able to do a job and earn money sooner than later but also, and much more importantly, because their *dream* is to have a career in the vocation they like, because they really *love learning* everything about it. It is this kind of student material that will really drive the vocational education and training to the future.

In our discussions with VET people several ideas were proposed to improve the attractiveness of VET to this kind of student material. Media campaigns was one of the ideas. Better educational orientation and guidance services to lower secondary education students and their families was another idea. The availability and dissemination through printed and electronic means of detailed information about vocational programmes and the prospects of their graduates in the labour market was yet another one. All these ideas if implemented in a coherent and consistent manner it is for sure that will help. However, no "promotional" and "informational" service can alone alter a very basic "misconception" about VET either to the wider public or to the prospective students and their families.

As long as vocational education and training is "promoted" to newcomers as a place where "reading" is not as important for successful learning as "doing", where "academic knowledge" is not as important, or is contrasted and opposed to "practical skills" the chances of vocational education to attract students who dream to have an intellectually challenging career are slim. However instrumental can, and much be, VET students' motivation to learning this should never be antagonistic to learning that is driven by a deep desire to learn out of interest, curiosity and need to know and understand. This is because it is the latter that will eventually help many VET students

overcome social and economic background barriers and educational disadvantages established during their early years in school. There is no way that you can cheat bright young boys and girls that all they need to have a fulfilling career is to develop their skills on doing something. They do not want to just know how and be able to do it but also they want to know why and they want to discover and create and for this they know that they have to be able to understand. Today's young boys and girls know or sense the difference between a cook in a fast-food and a top chef, a car engineer in the neighbourhood and a car engineer in a high-tech lab, a microbiologist assistant in the local health centre and a microbiologist assistant in the pharmaceutical industry.

9.1 Ensuring that all students in the region have equal opportunities and access to vocational programmes and schools

The promotion of equity in vocational schools and programmes involves careful financial planning, targeted investments and public accountability. One of the major problems regarding accountability in the face of equity, is that it is often unclear what are the real costs involved in the day-to-day operation of public vocational education and training programmes and schools and how these are distributed to different "parts" of the system. Official national statistics on regular public spending and investments in VET are often missing or consist of unreliable and disconnected data. Vocational education and training is considered to be more expensive than general/academic programmes because of the need to invest in laboratory equipment and consumables and the need to serve the needs of a large variety of vocational specialties. Therefore, specific and reliable financial data are particularly useful to reach to valid conclusions about the fairness with which public investments are made to general and vocational orientation programmes or the particular financing priorities at national level and regional level. *In general, the lack of detailed and weighted data on public spending by programme orientation indicates a relative underestimation of the need to promote fairness of treatment to students of different orientation paths from a systemic point of view.*

Any realistic strategic policy initiative at regional level targeting to the promotion of equity in vocational education and training level needs to have a clear view of what is the regular budget and what is the budget for investments and how these two are distributed in the region. The latter can have important implications on the fairness and inclusiveness in the objective opportunities that students in the region have to enroll and successfully complete a vocational programme in the region.

In equitable regional systems of public vocational education and training:

Inner-city families, families living in the suburbs or in rural and geographically remote areas should not differ much in their objective capacity to have their child enrolled in a VET programme or school located at a reasonably reachable distance.

VET programmes or schools should be freely accessible by all students who are fulfilling the typical educational requirements for enrollment, irrespective of the socio-economic and cultural background of their families. Students with special abilities get targeted support to be able to follow vocational programmes adapted to their needs.

The number, the size and location of VET schools in the region, as well as the VET programmes of study offered by the schools, should be in accordance to the enrollment demands, the VET specialty demands and the geographical distribution and density of the population.

Public schooling is envisaged and anticipated to ensure that all students can get free access to VET schools/programmes. But the role and responsibility of regional educational authorities goes far beyond this. The very essence of a public system of education is not only to ensure free schooling but also to ensure that all schools receive public funds and support to satisfy certain baseline standards regarding the condition of the school buildings, the safety and accessibility conditions, the availability of learning materials, and the availability of classrooms, labs and teachers at such numbers so as to satisfy a set maximum teacher:student ratio and a set maximum number of students per classroom or lab.

At the level of baseline conditions equity between the regional population of VET students and the population of students following general/academic orientation studies means that no population is more privileged than the other regarding the availability and condition of schools, the availability of teachers or learning materials. Ideally, no family or student in the region should experience inequality in baseline schooling conditions just because VET schools as compared to general/academic education schools tend to operate in newer or renovated buildings, safer, more accessible and cleaner, less crowded and better equipped places and vice versa.

Assuming that such baseline conditions are, more or less, uniformly satisfied across a region, one would expect that no prospective or current VET student and his/her family would experience inequalities in access and opportunities to benefit from the public good of education because the baseline standards in their VET school or in the VET schools of their community are not met, for example, because as compared to most other VET schools in this region, their VET school(s) is overcrowded, it is understaffed, difficult to access, unheated and lacking necessary labs, learning materials and reasonably enough VET specialty choices.

9.2 Ensuring that all vocational programmes and schools in the region follow the same academic and professional training quality standards

In regional systems of vocational education and training where schools and vocational programmes have not any clear common standards that they have to implement in the academic education and professional training they provide, it is likely that some schools and some programmes will tend to operate in substandard conditions and go unnoticed by the educational authorities and the public. In such conditions equity can never be promoted.

In equitable regional systems of public vocational education and training:

all vocational programmes and schools across a region should be required by the educational authorities to follow explicit, uniformly defined, academic and professional training standards.

Standards on teaching and learning in terms of:
a) aims and objectives,
b) quality of teaching and learning processes,
c) quality of learning materials,
d) quality of learning experiences, and
e) quality of teaching and learning outcomes,

should ensure that all students in the region, irrespective of the vocational programme they follow or the school they are enrolled in, receive quality education and training.

Assuming that common academic and professional training quality standards are promoted by the educational authorities of a region, no VET student should experience inequality of treatment because her VET programme or school is not explicitly required by the educational authorities to satisfy, or to follow a specified course of action in order to satisfy quality standards common to all VET schools and programmes of study in the region. Similarly no VET student should experience inequality because the VET programme of study she chose is required to satisfy lower academic and/or professional training quality standards and is based on an outdated curriculum as compared to the quality requirements and curricula of other same-level vocational programmes.

At EU level calls for discussion and co-operation on quality assurance in VET are dating back in the 2002 Copenhagen Declaration, the establishment in 2003 of the Common Quality Assurance Framework for VET (CQAF), the Helsinki Communique in 2006 and the Bordeaux Communiqué in 2008. More recent developments include the recommendation of the European Parliament and Council on the European Quality Assurance Reference Framework for Vocational Education and Training (EQAVET[53]) and the work done by the European Centre for the Development of Vocational Training (CEDEFOP[54]) and the European Network on Quality in VET (ENQA-VET[55]).

9.2.1 Quality issues that may need particular attention and planned interventions

Classroom-based teaching and learning

Sometimes it can be the case that vocational school administrators and teachers focus more on improving the quality of specialty training school laboratories and less on improving the quality of the learning environment in ordinary classrooms, where more “theoretical” courses or lessons often take place. This may result in huge differences in the quality of these two types of learning environments in favour to laboratory training. Dull and poorly equipped classrooms do not only undermine the quality of teaching and learning that takes place in them but also sends the wrong message to the students that “theoretical” lessons and courses are not only intrinsically less interesting but also less relevant and important for professional and personal development. Furthermore, because the curricula of some specialty studies may demand more classroom-based teaching and learning than others, dull and poorly equipped classrooms create the ground for the unfair treatment of students following these specialties.

[53] See Recommendation of the European Parliament and of the Council of 18 June 2009 on the establishment of a European Quality Assurance Reference Framework for Vocational Education and Training. *Official Journal of the European Union*, C 155/1, 8.7.2009.

[54] See for example Cedefop (2009). *Accreditation and quality assurance in vocational education and training, Selected European approaches*. Luxembourg: Publications Office of the European Union.

[55] See http://www.eqavet.eu/gns/home.aspx.

School laboratory-based teaching and learning

School laboratories serving the training needs of related specialties are assumed to create a learning environment and to afford a range of activities and tasks that are what we call "operationally equivalent" to the environment, activities and tasks of professionals in real-life workplaces. In many vocational specialties students is feasible to get "operationally equivalent" laboratory practice that resembles or is even identical to the every day practices of professionals in a real-life workplaces. However, in some vocational specialties laboratory practice is often difficult or impossible to replace workplace training. For example, a school mechanical engineering laboratory is feasible, with the right infrastructure and equipment, to provide in-depth, advanced training to students who want to become vehicle mechanics. In contrast, a school laboratory serving the needs of health and care specialties is difficult to offer "operationally equivalent" experiences to students simply because they will not be able to practice on real patients or other people in need of care services. Such inherent differences in the quality of learning experiences offered to students of different specialties through school laboratory-based training may potentially create the ground for unequal treatment.

Workplace training

Mixing school-based vocational training with on-the-job practice poses different but no less important issues of equity of treatment at school and regional level. This is because regional and school administrators and teachers who organize and supervise on-the-job training programmes have to ensure not only that all students do find the right workplace to practice their specialty but also that the quality of workplace training follows some clearly defined quality standards and that the students are not being exploited as low cost labour force. What is also of paramount importance regarding equity of treatment and outcomes in on-the-job practice is that the workplace personnel who undertakes the task of trainer, is not only fully qualified in the specialty of interest to the trainee but also that has some pedagogic training too. At system level the lack of a clear regulating framework may leave much room for the establishment of great variation in the quality of on-the-job practice and hence of inequalities in VET students' treatment at the workplace and in the learning outcomes of such a practice.

School staff or local and regional VET administrators responsible for establishing links with the world of work and managing on-the-job practice programmes are those who in effect can ensure that their students are treated fairly and with inclusiveness on the workplace ground. In the world of work the priorities often are not those of fairness in treatment and inclusiveness. Girls in traditionally "masculine" specialties such as mechanical engineering or boys in "feminine" ones such as those in the fields of health and care may face in full form the effects of workplace stereotyping such as mistrust in their capabilities because of their gender and this can have a very negative impact on what trainees actually "learn" in the workplace and how they feel about it and about themselves as future professionals. Students with an immigrant background are also in danger of facing incidents of xenophobia in the workplace. The logic of doing on-the-job practice as part of the formal requirements for the completion of a vocational education programme is for the students to learn their specialty by doing, something which the workplace is often more capable of offering as compared to school, but it should never be taken as granted that all things which may be considered as "normal" or "ordinary" practice in workplaces, either because of tradition or because of regulating frameworks, is beneficial for the learning process of the students.

Vocational teacher qualifications and professional development

It is perhaps needless to stress the importance of regular region-wide initiatives for the continuous upgrading of vocational teachers' professional and pedagogic competencies. Because however at regional level but also at school level there may be a wide variety of teachers regarding their specialty expertise and formal qualifications, it is possible that some specialty teachers objectively enjoy fewer opportunities to get further training than others. For example, the professional development needs of

teachers in some specialties who are in much less demand than others (and hence they constitute small “minorities” within the vocational teacher population of a region) may get ignored by regional decision makers and planners who are responsible for organizing teacher training programmes.

Other “minority” groups in vocational schools are teachers in “academic” or “general education” subjects, such as language or mathematics teachers. Such groups, because their courses sometimes are wrongfully believed to be less “important” for the professional and personal development of students than the specialty courses, may be neglected regarding their needs for further professional development. Yet, these are the groups that may be in pressing need for continuous professional support and guidance, given that vocational students are often less motivated with such “traditional” subjects than with specialty subjects.

Vocational schools sometimes have to employ experienced practitioners as teachers or tutors in specialty courses. It is often the case with such professionals that they have no prior pedagogic qualifications or teaching experience; such school staff is also in need for systematic pedagogic training. Nevertheless their need for training may be ignored because such staff is often working part-time or on a non-permanent basis. In general, wide variation in the professional development and pedagogic training opportunities and participation by some groups of teachers in vocational schools may gradually lead to the establishment of systematic gaps in the professional competencies between different groups of the teaching staff of a region; this is likely to lead to the emergence of wide differences in the quality of teaching offered by different groups of teachers, something which affects the fairness with which students are treated at school.

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