

EENEE Ad-hoc Question

Developments in the rates of early leavers from education and training (ELET)

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ELET, as known in Europe, or high school dropouts, as known in the United States, has been of great concern in recent years and generated a very rich literature. The reason is a flood of research has shown that early school leaving is associated with a host of negative effects and generates a loss to individuals and society. A mirror image of the loss is the expected gain by reducing the ELET incidence.

The studies on the potential loss associated with ELET, or the gain from reducing it, were precipitated by the European Commission's setting a target that the proportion of early school leavers should be no more than 10% by 2010 (European Commission, 2006). Similar objectives have been formulated in the United States by the No Child Left Behind Act (United States Government, 2001).

The issue is important because there is a lot at stake. High school graduation is associated with many private and social benefits such as higher earnings and productivity, lower dependence on the state for health services, lower police costs and extra tax revenue. Table 1 provides a taxonomy of the expected benefits from secondary school graduation.

Table 1. Benefits associated with secondary school graduation

Beneficiary	Item
Private (individual, family)	Increased labour force participation Lower unemployment incidence Lower unemployment duration Increased earnings Better health Better consumer choice
Social (society at large)	Increased productivity Higher economic growth rate Positive spill overs on co-workers Better civic behaviour Less crime Informed voting Increased social cohesion Intergenerational effects
Fiscal (country finances)	Increased tax revenue Fewer welfare payments Reduced expenditures on criminal justice

Note: "Higher" or "lower" in this table is defined relative to a control group of non-graduates

Source: Author's own elaboration

Findings from ELET studies

Table A-1 in the Annex summarizes key findings from ELET studies. The measurement and size of the losses or gains found in these studies vary wildly because of differences in the database and the methodology used in the studies.

For example, reducing early school leaving in Romania would produce a benefit of about 1% of GDP according to one study (EFILWC, 2012), or 8% according to another (Varly et al., 2014). It would produce 40% higher lifetime earnings in Estonia (Anspal, et al. 2014), 120,000 pounds in the UK (Oreopoulos, 2006), \$8.2 billion in Australia (Applied Economics, 2002), or 50,000 euros per Roma graduate in Hungary (EU, undated).

Because of data availability, the most comprehensive studies of this kind refer to the United States, where many young people, especially blacks, do not complete high school (Alliance for Excellent Education, 2006). Below are highlights of a landmark study done at Teachers' College, Columbia University (Levin et al., 2007):

- High school dropouts in the United States, compared to a high school graduates, entails a loss of \$260,000 in lifetime earnings, \$60,000 in tax revenue and \$58 billion in total annual health costs.
- The country loses \$192 billion (1.6% of GDP) in income and tax revenue with each cohort of 18-year-olds who do not complete high school.
- Increasing the average years of schooling for dropouts by one year would mean 30% fewer murders and assaults, 20% fewer car thefts, 13% fewer arsons and 13% fewer burglaries. Increasing the high school completion rate by 1% would translate into \$1.4 billion per year in reduced costs from crime.
- The benefit-cost ratio of preschool programs in terms of reduced costs of crime, drug use and teen parenting is 7:1.

Also in the United States, a 1% increase of high school completion rates generates an annual social benefit of \$1.4 billion due to the reduction of crimes alone (Lochner and Moretti, 2004). The benefit-cost ratio of interventions to reduce the dropout rate range from 2.1 to 4.4 (Levin et al., 2007).

In the United Kingdom the earnings gain caused by one additional year of schooling relative to a dropout who left school at age 15 is 14 percent, resulting to a present value from staying in school of \$150,000 per graduate (Oreopoulos, 2006).

An Estonian study took into account the better employment chances of the high school graduates, and found a present value of \$40,000 per male graduate (Anspal et al., 2011).

The European Foundation for the Improvement of Living and Working Conditions study using the 2005 to 2011 European Survey on Income and Living Conditions estimated that the resource costs of being a dropout to \$7,000 per year in EU26 (EFILWC, 2012).

Brunello et al. (2012a) using comparable data of the SHARE Survey on the Health, Age and Retirement in Europe in nine European countries found that an additional year of schooling increases the lifetime earnings by 5% to 20% depending on the modeling specification.

In another study covering Austria, Czech Republic, Denmark, England, France, Italy and the Netherlands, Brunello et al. (2013) used variations in compulsory schooling to estimate the causal effect of education on health. They found that one additional year of schooling decreases the probability of being in poor health by 7 percentage points on average.

Machin and Vujic (2011), estimated the social benefits from crime reduction in the UK that would follow from a one percent reduction in the percentage of those with no educational qualifications to be 151 million dollars.

In cross-country macro-studies, increasing the average number of years of schooling of the population by one year is associated with a rate of return on the investment ranging from 5% to 37%, increases per capita income from 3% to 30%, or an additional 0.5 percentage points of the rate of growth of the economy (Table A-2).

On a global scale, the monetary returns to secondary school graduation are of the order of 15 % (Psacharopoulos and Patrinos, 2018). Monetizing and adding to this the many non-market benefits associated with increased educational attainment (Oreopoulos and Salvales, 2011), the social rate of return could be of the order of 20%.

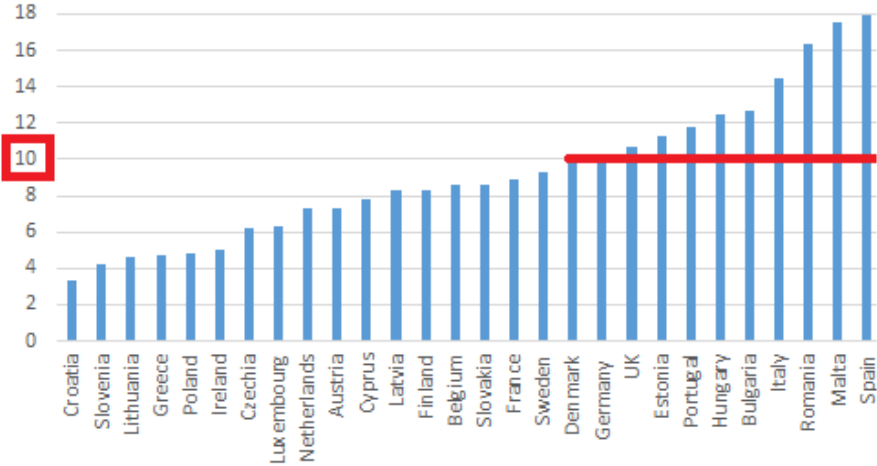
ELET developments in Europe

At the 2000 European Council in Lisbon, the Union defined the dimension of the school failure problem as: “The number of 18 to 24 year olds with only lower-secondary level education who are not in further education and training”. An EU benchmark was set, that the proportion of early school leavers should be no more than 10% by 2010 (European Commission, 2006).

By 2008 it looked unlikely that this target would be met, so the Strategic Framework for European Cooperation in Education and Training (ET 2020) pushed the target to 2020 (European commission, 2008).

According to the latest data referring to 2018, it is very likely that the 10% target will be missed again. The reason is that, whereas some countries have done a lot of progress in reducing ELET, eleven countries in EU-28 were below the target in 2018. The overall below the target mean in EU-28 is driven by countries such as Spain and Malta where ELET is of the order to 18%.

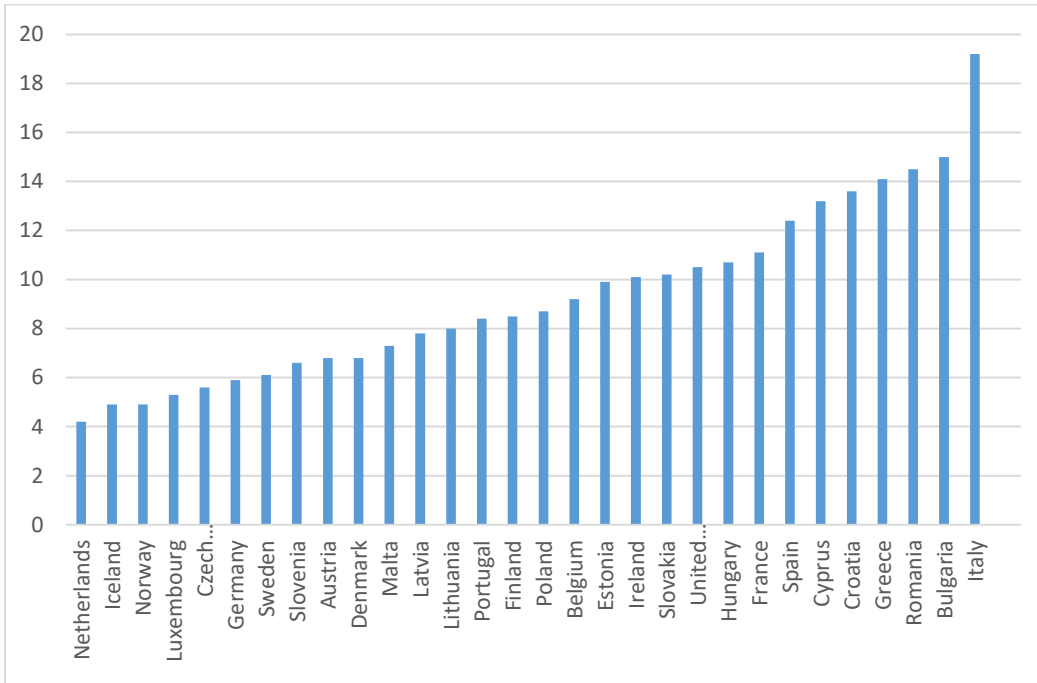
Figure 1. ELET in EU-28, 2018



Source: Table A-3.

The International Labour Office uses another indicator called NEET (ILO, 2015), defined as the share of persons to aged 15 to 24 who are not in education, employment or training giving a different picture relative to Eurostat’s 18 to 24 age range (Figure 2). Although NEET and ELET are not strictly comparable, 11 European countries are above the EU 10% benchmark.

Figure 2. Youth not in education, employment or training (NEET), 2018

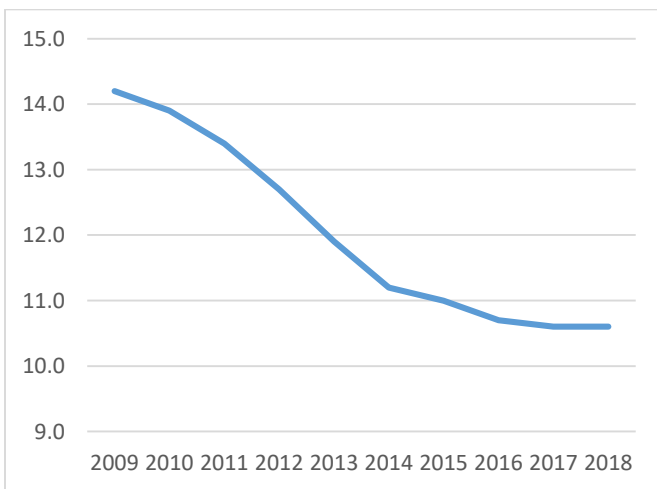


Source: Table A-4.

In the following we will focus on ELET because Eurostat provides more associated variables than the ILO.

ELET has shown a steady decline between 2009 and 2014, but thereafter has levelled off towards an asymptote of 10.6%. The ELET time trend mirrors a sigmoid S-curve that describes many statistical series, such as learning, where there is a slow beginning followed by accelerated improvement and levelling off to an asymptote (Figure 3).

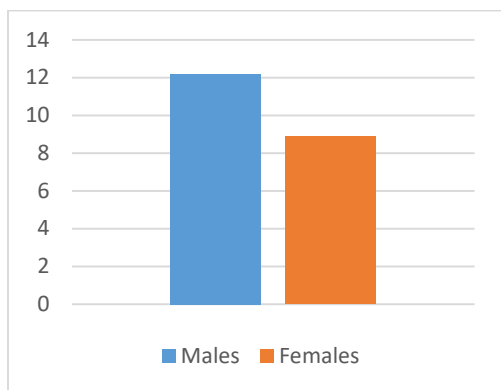
Figure 3. ELET time trend, EU-28 (%)



Source: Table A-3.

Breaking down ELET by gender shows a marked difference between males and females, 12.2% vs. 8.9%, respectively. This gender difference must be due to the fact females have less employment opportunities relative to males.

Figure 4. ELET by gender, EU-28, 2018 (%)



Source: Tables A-5 and A-6

Focusing on those born in foreign countries, the incidence of ELET increases sharply in the last two years.

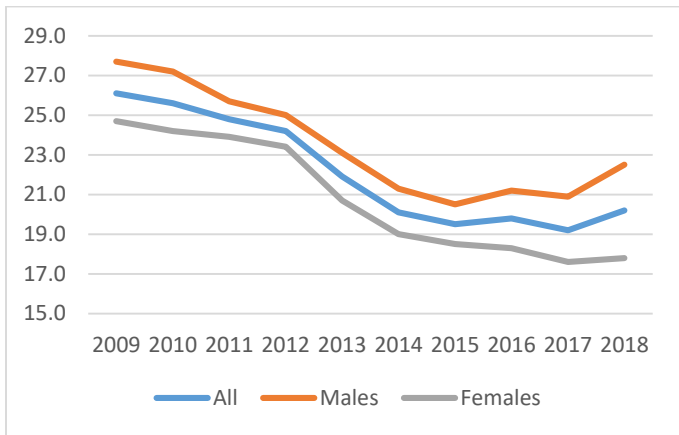
Analysing PISA data, Hippe and Jakubowski (2018) found that immigrant students do not structurally differ in their expected early dropout probability from natives across Europe.

Table 2. ELET among foreign born, 2018

	All foreign born	Non-EU28 foreign born
All	20.2	20.7
Males	22.5	22.8
Females	17.8	18.4

Source: Eurostat [edat_ifse_02]

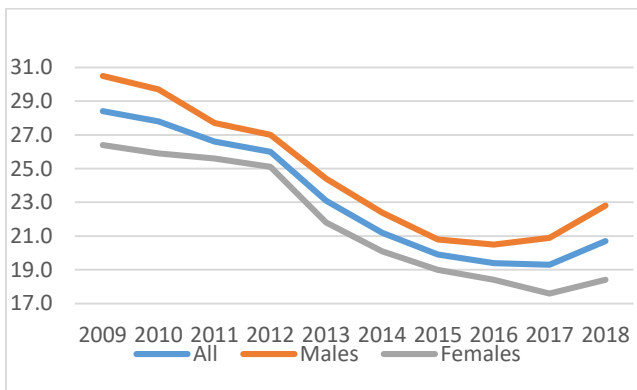
Figure 5. ELET among foreign-born, EU-28, 2018 (%)



Source: Eurostat [edat_ifse_02]

Focusing on the non-EU foreign-born persons, the same pattern of increasing ELET in recent years is repeated.

Figure 6. ELET among non-EU foreign-born (%)

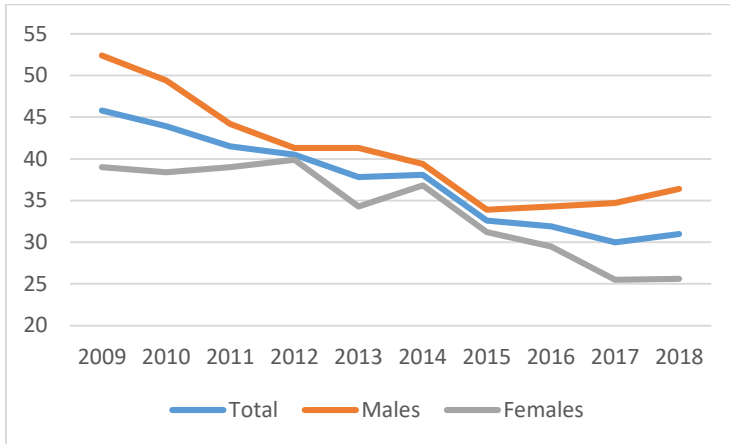


Source: Eurostat [edat_ifse_02]

ELET performance of particular countries

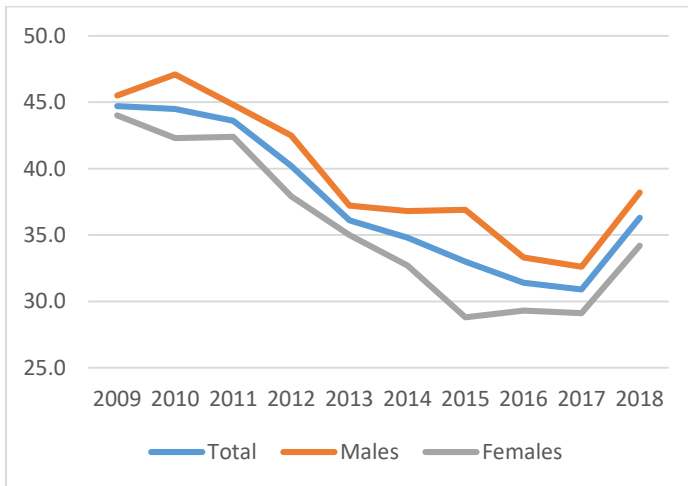
Focusing on two countries with ELET above 30%, Spain and Italy, the overall pattern of increasing ELET in recent years is again observed.

Figure 7. ELET, Spain (%)



Source : Eurostat [edat_lfse_02]

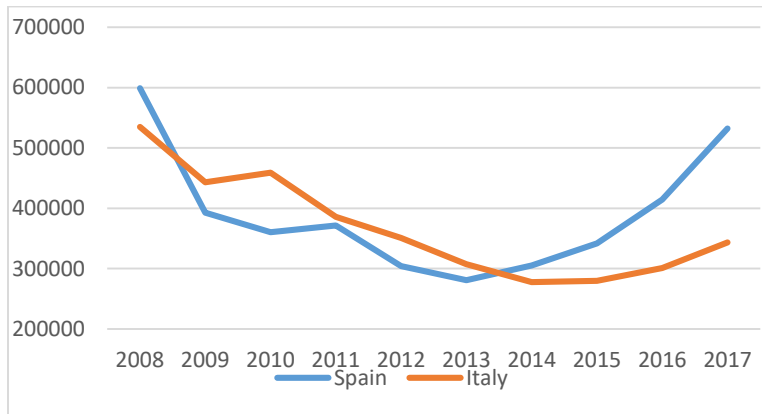
Figure 8. ELET, Italy (%)



Source: Eurostat [edat_lfse_02]

The pattern of increasing ELET in Europe in recent years could be due to increased immigration flows, as shown in the case of Spain and Italy.

Figure 9. Immigrant flow to Spain and Italy



Source: Eurostat [migr_imm8]

Explaining ELET

Why some students opt to drop out early in school? From their private personal and family viewpoint they must be making a rational decision based on their circumstances and information they have on the costs and benefits of the decision. Whether this is also a socially optimal decision is another matter.

Table 1 gives possible factors contributing to ELET that could be classified into major categories – such as personal, school-related and financial, many of which are interrelated.

Table 3. Major early school leaving factors

Domain	Characteristic
Personal	Disability Gender Immigrant
Family	Socioeconomic background Low income
School	Low quality Low achievement
Economy	Economic growth rate Unemployment rate
Institutional	Compulsory length of schooling

Source: Author's own elaboration

A student may drop out of school for health reasons, and the school does not cater for students with disabilities. Or the student may attend a low-quality school leading to low achievement, repetition and dropout.

Gender also relates to ELET. Male students are more prone to dropping out relative to females, because the former have higher earnings in the labour market. As shown in Table 4, the private return to secondary education exceeds that of many alternative investments.

Table 4. Private rates of return to secondary education, men

Country	Rate of return (%)
Slovak Republic	40.8
Czech Republic	21.2
Hungary	15.2
Sweden	14.9
Ireland	14.7
United Kingdom	12.5
Austria	12.4
Slovenia	12.1
Norway	11.9
Portugal	11.5
Spain	11.4
Denmark	11.2
France	10.7
Poland	10.3
Estonia	9.1
Finland	8.4
Italy	8.1
Germany	6.7
Average	13.5

Source: OECD (2012)

Socioeconomic background is a major ELET determinant. Students from low socioeconomic status do not have the proper parental motivation for staying in school. In addition, low SES is associated with low family income, obliging the student to drop out and join the labour market to supplement such income. Parental educational level has been found to be a significant predictor of early school leaving in the United States and Norway (Iannelli and Smyth, 2008).

Immigrants come from a lower socioeconomic background relative to natives. Students from ethnic minorities are more likely to be low-achievers, repeat grades and eventually drop out of school (de Graaf and van Zenderen, 2009). In Albania, these are students from linguistic and ethnic minorities, especially from Roma and Egyptian communities (Unesco, 2016). In the Netherlands, migrants are more prone to drop out of school relative to natives (de Graaf and van Zenderen, 2009).

Grade repetition is a major correlate of student-related risks factors to dropping out (Entwisle et al., 2005). In Spain, for example, nearly one in five students repeat the third grade of Educación Secundaria Obligatoria associated with an overall dropout rate of 28% (Enguita et al., 2010). Grade repeaters, immigrant students and low achievers are more likely to dropout (de Witte et al., 2013).

Selective private schools are associated with a lower dropout risk, perhaps because of their higher quality relative to state schools (Okpala et al., 2001; Dustmann and van Soeast, 2008).

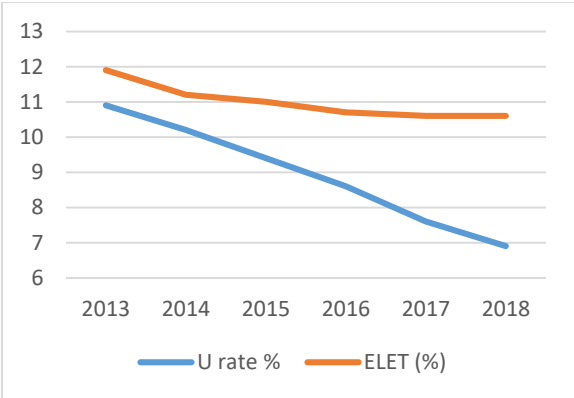
Some studies report that a larger class size increases the dropout risk (Balfanz and Legters, 2005; Tudorel et al., 2011). But the effect of class size is relatively small. In Sweden, reducing class size by one student increases years of schooling by only 0.05 (Fredriksson et al. 2013). In Denmark, Browning and Heinesen (2007) find that reducing class size by one pupil increases the probability of completing upper secondary education by 0.4% and mean educational attainment by about 0.005 years.

Establishing a school environment that caters to the needs of diverse students is conducive to lower ELET (Swadener, 1995; te Riele, 2006).

Macroeconomic conditions are also related to ELET. A booming economy means more opportunities to work, lower unemployment and higher earnings (Cabus and De Witte, 2013; Card and Lemieux, 2001).

As shown in Figure 10, the recent stabilization of ELET might be due to the falling unemployment rate in Europe.

Figure 10. ELET and unemployment rate, EU-28 (%)



Source: Table A-8

Policies

There is no silver bullet for solving the ELET problem. Potential policies aiming at reducing the ELET problem could be classified into the categories shown in Table 6, mirroring the causes.

Table 6. ELET reducing policy domains

Category	Policy	Likely effectiveness
Institutional	Make secondary school graduation compulsory	Low
Family background	Involving parents Conditional school staying subsidy	High
Student	Early identification of ELET risk	Moderate
School	Tracking Students at risk identification Remedial courses	Moderate

Source: Author’s own elaboration

Making secondary school graduation compulsory will not work, as a long history of compulsory schooling laws has demonstrated (Fidinski et al., 2019).

Spain enacted the so-called LOCME Law (2013) introducing external standardized tests that students will have to pass in order to get their high school diploma, regardless of how well they performed in school. The effects of the Law have been controversial (Cristian Science Monitor, 2013).

In the Netherlands, Cabus and De Witte (2011) estimated that the effect of a one-year increase in compulsory education decreased the dropout rate by 2.4 percentage points. For the UK, Oreopoulos (2006) estimated that the compulsory increase in the school leaving age by one year was 0.5 years. For European countries, estimated that the effect of compulsory schooling is close to 0.3 years (Brunello et al., 2009).

Early identification of students at risk of leaving school, designing special programs for them, especially for immigrant children are possibilities - although difficult to enact in rigid educational systems.

Engaging students' parents can an effect in reducing ELET (Reich and Young, 1975). A program in France aiming at identifying students at risk of dropping out and involving parents reduced grade repetition from 13% to 9% and dropout from 9% to 5% (Goux et al., 2014).

Financial incentives intended to change the opportunity cost of education by paying cash transfers offered to students on the condition they remain in school seem work well in in developing countries (Angrist et al., 2006). But the effect of financial incentives in Italy and the Netherlands gave mixed results (De Paola et al. 2012; Leuven et al. 2010).

In the UK, the Earnings Maintenance Allowance program paid a means tested benefit to 16 to 18-year-olds from low income families who remained in school after compulsory education. An evaluation of the program found that it had a nearly 7 percentage points increase in completing two years of post-compulsory education (Dearden et al. 2009).

It has been found that increased education spending in European countries decreases ELET (Tudorel et al., 2011). But in the international literature it has been found that giving additional resources to schools is a doubtful policy (Hanushek, 1997). The Education Priority Zones program in France was targeted at schools located in disadvantaged zones. Schools received additional resources for additional hours of instruction and to pay bonuses to teachers. The results showed that the impact of ZEP on the academic achievement of students was never significantly different from zero, (Bénabou et al., 2009).

In Denmark, reducing class size during compulsory schooling by 5% would increase mean length of education by about about 8 days, or one per cent change in the length of schooling (Bingley et al., 2005)

Analysing TIMMS data for 18 countries, Woessmann and West (2002) report mixed results regarding the effect of class size on student achievement.

In the Netherlands, giving additional resources to schools with disadvantaged students failed to increase student performance (Leuven et al. 2007).

The Excellence in Cities program in the UK gave extra resource to schools in disadvantaged areas. Machin and McNally (2012) report that benefits of the program was 0.02 extra years of schooling.

In the Netherlands, a one-year increase in compulsory school age reduced the dropout rate by 2.4 percentage points (Cabus and De Witte, 2011).

A review of 155 research reports on reducing absenteeism and increasing school attendance pointed at the need to shift focus from individual student characteristics to the school and the community (Ekstrand, 2015).

Questioning the benchmark

After all, how realistic is the 10% goal? Beyond being a nice round number, it is not clear how and on what criteria it was adopted in the first place.

The indicator is quantitative, i.e. it refers to a headcount of students. It ignores the quality or the cognitive outcomes in the heads. Students may be forced to graduate without mastering the curriculum content.

Actually, a 0% headcount goal might be better in the sense that today's skill needs in the labour market require at least secondary school graduation. But again, without adding a qualitative dimension to the benchmark, such as proficiency on the subject matter at a given level, the indicator would be meaningless.

Given the wide range of ELET across countries, another possibility might be to adopt as goal a percentage reduction of the indicator, e.g., a one percentage point per year. In the case of Spain, for example, it would mean a reduction of ELET from 18% to 15% in three years.

But again, the main obstacle to achieving any kind of ELAT benchmark, would be the adverse socioeconomic background of some students, especially immigrants, and the need for dropping out of school to supplement family income.

This might be a tall order for an educational system to take care, needing supplementary policies in other sectors.

Annex

Table A-1. Losses or gains associated with reducing early school leaving

Country	Effect	Source
Albania	0.03% of GDP	Psacharopoulos (2017)
Australia	\$8.2b. present value of benefits	Applied Economics (2002)
Australia	0.28% of GDP	Allen Consulting Group (2003)
Australia	1.1% of GDP	Access Economics (2005)
Canada	\$82,572 per graduate lifetime earnings gain	Oreopoulos (2006)
Colombia	0.43% of GDP	Thomas, et al. (2015)
Estonia	35% - 46% increase in lifetime earnings	Anspal, et al. (2011)
Estonia	1.1% of GDP	EFILWC (2010)
Poland	1.5% of GDP	EFILWC (2010)
Hungary	1.6% of GDP	EFILWC (2010)
Hungary	30,000 –70,000 euros per Roma graduate	EU (undated)
Romania	7% to 9% of GDP	Varly, et al. (2014)
Romania	0.9% of GDP	EFILWC (2012)
EU, 26 countries	1% of GDP 742 to 5204 euros fiscal loss per graduate	EFILWC (2012)
EU, 9 countries	9 % to 21.1% increase in lifetime earnings	Brunello, Weber and Weiss (2012)
EU, 7 countries	4 to 8.5 percentage points lower probability of being in poor health	Brunello and De Paola (2013)
UK	\$120,354 per capita lifetime earnings gain	Oreopoulos (2006)
UK	54 to 109 million pounds savings from crime reduction	Machin, et al. (2011)
USA	\$121,000 to \$294,000 per capita lifetime earnings gain	Rouse (2007)

USA	\$148 billion in lost tax revenues	Levin, et al. (2007)
USA	\$103,593 present value per graduate	Oreopoulos (2006)
USA	\$183,000 benefits of high school graduation	Muenning (2007)
USA	\$1.6 billion crime savings	Lochner and Moretti (2004)
USA	\$8.5 billion fiscal savings	Vernez, et al. (1999)

Table A - 2. Cross-country macro-estimated effects of one additional year of schooling

Effect	Source
30% higher GDP per capita	Heckman and Klenow (1997)
5% to 15% increased output per worker	Topel (1999)
0.3% per year faster economic growth rate	Bils and Klenow (2000)
18% to 30% rate of return	Krueger and Lindahl (2001)
3% to 6% higher per capita income	Bassanini and Scarpetta (2001)
3% to 6% higher per capita income, or one percentage point higher growth rate	Sianesi and van Reenen (2003)
27% rate of return	de la Fuente and Domenech (2006)
9.0 to 12.3% rate of return	Cohen and Soto (2007)
36.9% rate of return or 0.58 percentage points higher economic growth rate	Hanushek and Woessmann (2008)
12.1% rate of return	Barro and Lee (2010)
25% rate of return	Patrinos and Psacharopoulos (2013)

Table A-3. Early leavers from education and training, EU-28 countries

(% of the population aged 18-24)

Country	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Spain	30.9	28.2	26.3	24.7	23.6	21.9	20.0	19.0	18.3	17.9
Malta	25.7	23.8	22.7	21.7	20.8	20.9	20.2	19.2	17.7	17.5
Romania	16.6	19.3	18.1	17.8	17.3	18.1	19.1	18.5	18.1	16.4
Italy	19.1	18.6	17.8	17.3	16.8	15.0	14.7	13.8	14.0	14.5
Bulgaria	14.7	12.6	11.8	12.5	12.5	12.9	13.4	13.8	12.7	12.7
Hungary	11.5	10.8	11.4	11.8	11.9	11.4	11.6	12.4	12.5	12.5
Portugal	30.9	28.3	23.0	20.5	18.9	17.4	13.7	14.0	12.6	11.8
Estonia	13.5	11.0	10.6	10.3	9.7	12.0	12.2	10.9	10.8	11.3
United	15.7	14.8	14.9	13.4	12.4	11.8	10.8	11.2	10.6	10.7
Germany	11.1	11.8	11.6	10.5	9.8	9.5	10.1	10.3	10.1	10.3
Denmark	11.3	11.0	9.6	9.1	8.0	7.8	7.8	7.2	8.8	10.2
Sweden	7.0	6.5	6.6	7.5	7.1	6.7	7.0	7.4	7.7	9.3
France	12.4	12.7	12.3	11.8	9.7	8.8	9.2	8.8	8.9	8.9
Belgium	11.1	11.9	12.3	12.0	11.0	9.8	10.1	8.8	8.9	8.6
Slovakia	4.9	4.7	5.1	5.3	6.4	6.7	6.9	7.4	9.3	8.6
Latvia	14.3	12.9	11.6	10.6	9.8	8.5	9.9	10.0	8.6	8.3
Finland	9.9	10.3	9.8	8.9	9.3	9.5	9.2	7.9	8.2	8.3
Cyprus	11.7	12.7	11.3	11.4	9.1	6.8	5.2	7.6	8.5	7.8
Netherlands	11.3	10.1	9.2	8.9	9.3	8.7	8.2	8.0	7.1	7.3
Austria	8.8	8.3	8.5	7.8	7.5	7.0	7.3	6.9	7.4	7.3
Luxembourg	7.7	7.1	6.2	8.1	6.1	6.1	9.3	5.5	7.3	6.3
Czechia	5.4	4.9	4.9	5.5	5.4	5.5	6.2	6.6	6.7	6.2
Ireland	11.8	11.9	11.1	9.9	8.7	6.7	6.8	6.0	5.0	5.0
Poland	5.3	5.4	5.6	5.7	5.6	5.4	5.3	5.2	5.0	4.8
Greece	14.2	13.5	12.9	11.3	10.1	9.0	7.9	6.2	6.0	4.7
Lithuania	8.7	7.9	7.4	6.5	6.3	5.9	5.5	4.8	5.4	4.6
Slovenia	5.3	5.0	4.2	4.4	3.9	4.4	5.0	4.9	4.3	4.2
Croatia	5.2	5.2	5.0	5.1	4.5	2.8	2.8	2.8	3.1	3.3
EU-28 mean	14.2	13.9	13.4	12.7	11.9	11.2	11.0	10.7	10.6	10.6

Source: Eurostat [edat_ifse_14]

Table A-4. ILO's NEET

Netherlands	4.2
Iceland	4.9
Norway	4.9
Luxembourg	5.3
Czech Republic	5.6
Germany	5.9
Sweden	6.1
Slovenia	6.6
Austria	6.8
Denmark	6.8
Malta	7.3
Latvia	7.8
Lithuania	8
Portugal	8.4
Finland	8.5
Poland	8.7
Belgium	9.2
Estonia	9.9
Ireland	10.1
Slovakia	10.2
United Kingdom	10.5
Hungary	10.7
France	11.1
Spain	12.4
Cyprus	13.2
Croatia	13.6
Greece	14.1
Romania	14.5
Bulgaria	15
Average	9.5

Source: ILO, 2019.

Table A-5. ELET Males

(% of the population aged 18-24)

Country	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Spain	37.4	33.6	31	28.9	27.2	25.6	24	22.7	21.8	21.7
Malta	30.1	29.9	28.8	26.4	23.3	22.5	23.3	23.1	20.9	19.4
Romania	16.1	19.5	19.1	18.5	18.7	19.5	19.5	18.4	18	16.7
Italy	21.8	21.8	20.6	20.2	20	17.7	17.5	16.1	16.6	16.5
Estonia	17.9	14.4	12.8	13.3	13.6	16	14.2	14.3	14.2	16.1
Portugal	35.8	32.4	28.1	26.9	23.4	20.7	16.4	17.4	15.3	14.7
Bulgaria	13.7	12.4	11.2	12.1	12.3	12.8	13.3	13.7	12	12.6
Hungary	12.2	11.5	12.3	12.3	12.5	12.5	12	12.9	12	12.6
Denmark	14.3	14.1	12.1	10.8	9.9	9.5	9.7	8.5	11.3	12.5
United Kingdom	16.9	15.6	16.1	14.5	13.6	12.9	11.7	12.7	12.1	12.2
Germany	11.5	12.5	12.5	11.1	10.2	10	10.4	11	11.1	11.5
Latvia	17.6	16.7	15.8	14.7	13.6	11.7	13.4	13.7	12	11.4
France	14.5	15.3	14.1	13.7	10.7	9.9	10.1	10.1	10.5	10.8
Belgium	12.8	13.8	14.9	14.4	13.2	11.8	11.6	10.2	10.4	10.6
Sweden	8	7.5	7.8	8.5	7.9	7.3	7.6	8.2	8.2	10.4
Cyprus	15.2	16.2	15.1	16.5	14.8	11.2	7.7	11.4	9.4	9.9
Netherlands	13.6	12.4	11.1	10.5	11.2	10.6	9.9	10.1	9.4	9.3
Finland	10.7	11.6	11.2	9.8	10.4	11.9	10.6	9	9.5	9.2
Austria	8.6	8.4	9	8	7.9	7.6	7.8	7.7	9	8.9
Slovakia	5.7	4.6	5.4	6	6.7	6.9	6.9	7.6	8.5	8.3
Luxembourg	8.9	8	7.6	10.7	8.4	8.3	10.5	6.8	9.8	6.8
Czechia	5.5	4.9	5.4	6.1	5.4	5.8	6.4	6.6	6.8	6.4
Ireland	15.7	14.5	13.8	12	10.7	8.3	8.6	7.7	6.1	6.1
Lithuania	11.6	9.8	10	8.1	7.8	7	6.9	6	7	6.1
Poland	6.6	7.2	7.4	7.8	7.9	7.3	7.2	6.4	6	5.8
Greece	17.9	16.4	15.9	13.7	12.7	11.5	9.4	7.1	7.1	5.7
Slovenia	7.2	6.4	5.7	5.4	5	6	6.4	6.7	5.8	5.3
Croatia	5.5	6.5	5.9	5.7	5.5	3.1	3.5	3.5	3.8	3.5
EU-28 mean	16.1	15.8	15.3	14.5	13.6	12.7	12.4	12.2	12.1	12.2

Source: Eurostat [edat_ifse_14]

Table A-6. ELET Females

(% of the population aged 18-24)

Country	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Romania	17.2	19	17.2	16.9	15.9	16.7	18.5	18.7	18.1	16.1
Malta	21.1	17.4	16.3	16.9	18.1	19.2	16.9	15	14.3	15.5
Spain	24.1	22.6	21.5	20.5	19.8	18.1	15.8	15.1	14.5	14
Bulgaria	15.8	12.9	12.6	13	12.7	12.9	13.4	13.9	13.5	12.8
Italy	16.2	15.3	14.9	14.3	13.6	12.2	11.8	11.3	11.2	12.3
Hungary	10.8	10.1	10.6	11.2	11.4	10.3	11.2	11.8	13	12.3
Germany	10.7	11	10.7	9.9	9.3	8.9	9.8	9.5	9	9.1
UK	14.5	13.9	13.8	12.2	11.1	10.8	9.8	9.5	9	9.1
Slovakia	4.1	4.9	4.6	4.6	6.1	6.6	6.8	7.2	10.3	8.8
Portugal	25.8	24	17.7	14	14.3	14.1	11	10.5	9.7	8.7
Sweden	6	5.5	5.4	6.3	6.2	6	6.4	6.4	7.2	8
Denmark	8.1	7.7	7	7.4	6.2	6.1	5.7	5.9	6.2	7.8
Finland	9	9	8.4	8.1	8.3	7.2	7.9	6.9	6.9	7.4
France	10.3	10.2	10.4	10	8.6	7.8	8.4	7.5	7.2	6.9
Belgium	9.3	10	9.7	9.5	8.7	7.7	8.6	7.4	7.3	6.5
Estonia	9.1	7.6	8.4	7.3	5.8	7.9	10	7.4	7.3	6.4
Czechia	5.2	4.8	4.4	4.9	5.5	5.2	6	6.6	6.7	6.1
Cyprus	8.7	9.8	8.1	7	4.2	2.9	3.1	4.3	7.7	6
Luxembourg	6.6	6	4.8	5.5	3.7	3.7	8.1	4.2	4.6	5.9
Austria	8.9	8.3	8	7.6	7.1	6.5	6.8	6	5.8	5.7
Netherlands	9	7.7	7.2	7.2	7.4	6.8	6.4	5.8	4.6	5.3
Latvia	11	9	7.5	6.3	5.8	5.1	6.2	6.2	5	5
Ireland	7.9	9.3	8.3	7.8	6.6	5.1	4.9	4.3	3.9	3.9
Poland	3.9	3.5	3.7	3.5	3.2	3.3	3.2	3.9	3.9	3.7
Greece	10.5	10.6	10	8.9	7.5	6.6	6.4	5.3	4.9	3.6
Croatia	4.8	3.8	4	4.4	3.4	2.5	2	2	2.2	3.1
Lithuania	5.8	6	4.6	4.6	4.7	4.6	4	3.6	:	3
Slovenia	3.2	3.3	2.5	3.2	2.6	2.7	3.4	3.1	2.5	3
EU-28	12.3	11.9	11.5	10.9	10.2	9.6	9.5	9.2	8.9	8.9

Source: Eurostat [edat_ifse_14]

Table A-7. ELET foreign-born

(% of the population aged 18-24)

Country	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Belgium	20.5	21.9	23.3	22.6	21.7	17.5	18.2	17.8	16.4	18.7
Czechia	15.0	13.2	10.3	9.3	9.1	9.9	10.7	10.8	9.5	7.6
Denmark	15.8	16.7	12.9	10.1	8.8	8.4	8.7	7.9	9.3	9.9
Germany	22.0	23.3	22.3	20.8	19.5	19.5	21.3	23.2	22.8	24.1
Ireland	14.9	17.1	16.5	12.9	11.1	6.2	6.5	5.6	3.8	3.4
Greece	43.8	43.1	44.5	41.4	35.7	27.8	24.1	18.1	16.9	17.9
Spain	45.2	43.0	41.1	40.2	38.3	37.8	33.3	32.9	31.9	32.0
France	24.3	24.7	22.6	23.3	17.9	15.1	16.5	16.3	15.5	15.0
Italy	42.1	40.7	39.6	38.9	34.3	32.6	31.3	30.0	30.1	35.2
Cyprus	23.0	26.3	21.7	20.7	16.4	19.5	16.8	18.2	17.9	13.9
Luxembourg	13.4	10.2	7.9	10.6	8.1	7.8	15.6	8.5	8.2	6.0
Netherlands	13.6	11.4	10.6	12.4	11.3	10.3	9.7	8.3	6.6	11.1
Austria	22.0	21.2	19.9	17.7	18.4	14.9	19.0	14.7	18.4	17.0
Portugal	29.6	27.4	21.3	20.0	20.1	18.3	16.2	14.3	13.9	12.8
Slovenia	13.0	20.0	17.3	10.1	16.4	13.5	16.5	15.6	:	11.6
Finland	21.8	21.1	21.1	14.9	17.4	19.5	18.1	15.1	15.2	12.7
Sweden	11.9	10.8	12.2	12.8	12.2	12.6	13.9	15.2	15.5	17.7
UK	11.6	10.2	11.4	11.8	9.9	9.4	7.7	9.4	9.5	8.9
EU - 28	26.1	25.6	24.8	24.2	21.9	20.1	19.5	19.8	19.2	20.2

Source: Eurostat [edat_ifse_02]

http://appsso.eurostat.ec.europa.eu/nui/download?p=46414081-b055-46e8-a89d-ef14930b2104-1564668761026_&_t=1564668872783

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