



# Project Information Document (PID)

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Concept Stage | Date Prepared/Updated: 25-Mar-2019 | Report No: PIDC26479



**BASIC INFORMATION**

**A. Basic Project Data**

Country Croatia	Project ID P170178	Parent Project ID (if any)	Project Name Transforming the Education System in Croatia: Better Schools, Better Learning, Better Life (P170178)
Region EUROPE AND CENTRAL ASIA	Estimated Appraisal Date Jul 31, 2019	Estimated Board Date Oct 31, 2019	Practice Area (Lead) Education
Financing Instrument Investment Project Financing	Borrower(s) Republic of Croatia	Implementing Agency Ministry of Science and Education	

**Proposed Development Objective(s)**

To improve the quality and efficiency of education through increased instructional time and better time on task, school optimization and better school management

**PROJECT FINANCING DATA (US\$, Millions)**

**SUMMARY**

<b>Total Project Cost</b>	100.00
<b>Total Financing</b>	100.00
<b>of which IBRD/IDA</b>	100.00
<b>Financing Gap</b>	0.00

**DETAILS**

**World Bank Group Financing**

International Bank for Reconstruction and Development (IBRD)	100.00
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Environmental and Social Risk Classification

Concept Review Decision



Moderate

Track II-The review did authorize the preparation to continue

Other Decision (as needed)

## B. Introduction and Context

### Country Context

**Croatia was slow to rebound from the impact of the global economic crisis.** The crisis exposed the weaknesses of Croatia's growth model, which was based on domestic demand and fueled by high capital inflows and robust domestic credit growth. Lasting more than six years, the crisis resulted in one of the longest economic recessions in modern European history, with important implications for convergence and poverty reduction efforts. During the 2009-2014 period, Croatia lost 12 percent of its output, the share of population at risk of poverty increased considerably, and unemployment steadily increased from 8.5 percent in 2008 to a peak of 17.3 percent in 2014 (Croatian Bureau of Statistics 2018). The state of public finances also deteriorated significantly in this period, and public debt-to-GDP ratio more than doubled peaking at 84 percent in 2014 (Croatian National Bank 2018).

**Growth returned as of 2015, but it remains at one of the lowest levels among countries in Central and Eastern Europe (CEE).** In the 2015-2017 period, average real GDP growth reached 3.0 percent (Croatian Bureau of Statistics 2018), driven primarily by a strong rise in foreign demand and a pick-up in private consumption. The strong performance in exports was supported by record high tourist seasons and recovery of merchandise exports (albeit overall exports over GDP at around 50 percent remains small compared to EU peers). Private consumption recovery was supported by a rise in disposable income, subdued inflation, and improved consumer confidence. Private investment recorded solid growth during the recovery period accompanied by significant corporate deleveraging, while government investment plunged due to weak utilization of EU funds.

**Potential growth in Croatia remains subdued due to low total factor productivity (TFP) growth, an aging population, and rising levels of emigration.** Unlike most of its peers, where pre-crisis potential growth was largely driven by TFP increases, Croatia benefited mostly from capital accumulation related to public investments in infrastructure and real estate. Total factor productivity, in fact, made a negative contribution to growth from 2005 to 2014 and only a small positive contribution in 2015-17 (Croatian Bureau of Statistics 2018). This may partly mirror the excessive allocation of resources towards less productive sectors (e.g. tourism, retail and construction), low levels of research and development spending, comparably lower quality of human capital, cumbersome business environment, a relatively large and inefficient state-owned enterprise (SOE) sector, as well as deep institutional and regulatory weaknesses.

**Without a significant increase in productivity, Croatia will not be able to reach growth rates that would allow the country to converge towards the income levels of peers in the region, let alone advanced economies in Western Europe.** Annual GDP growth decelerated in 2018 to 2.6 percent from 2.9 percent in 2017, and it is estimated that growth will stay below 3.0 percent in the medium run. Capital investment is currently at 20 percent of GDP (Croatian Bureau of Statistics 2019) and expected improvements in the absorption of EU funds will boost investment, but not to the pre-crisis level of 28 percent of GDP. Furthermore, adverse demographic trends are being exacerbated by net emigration, and it is expected



that lack of labor input will also constrain growth in the upcoming period.

**Successful public policy-making and implementation are hampered by ineffective public sector institutions.** Croatia's public sector performance lags behind EU peers across most governance indicators. The frequent changes in government are accompanied by changes in technical staff which hampers the consistent implementation of policies and reduces the ability of authorities to exercise their oversight functions for SOE. Additionally, insufficient coordination and cooperation between agencies and levels of government impairs policy coherence. Poor legislative quality has led to frequent amendments to address shortcomings, an increase in uncertainty and a rise in the costs of compliance. The public sector is particularly weak at the local and regional self-government unit level, where high fragmentation raises costs and reduces the quality, effectiveness and sustainability of service delivery.

#### Sectoral and Institutional Context

**The 2014 National Education, Science and Technology strategy provides the long-term strategic vision, aiming to achieve a comprehensive, flexible and efficient education system.**<sup>1</sup> The strategy identified improving the efficiency of the school system as one of the key principles to achieve its vision. In addition, improving education quality through the curricular reform became one of the main objectives for primary and secondary education.

**Similar to other European countries, Croatia has initiated a number of important education reforms in recent years, and its spending on education is on par with EU averages.** Current or recent reforms include the development and implementation of a number of initiatives: (i) national curriculum framework in early childhood education and care (ECEC), primary, and secondary education, (ii) implementation of a state exam that serves as a secondary school-leaving/university-entering assessment, and (iii) introduction of performance-based financing in higher education. The ongoing, comprehensive curricular reform has faced challenges, but some progress has been achieved recently. The country's expenditure on education as a share of GDP at 4.8 percent nearly matches the EU average of 4.7 percent. Both Croatia's share of total government expenditure in education and the EU average in 2016 were 10.2 percent and have remained stable for the last few years (European Commission 2018). Returns to schooling in Croatia remain high and above the regional average with higher returns to females than males.

**The Croatian education system is affected by rapid population decline, high youth unemployment rates, and an outflow of talent.** Over the last decade, school-age cohorts shrank at a fast pace. The number of primary school students in Croatia declined by 15 percent and secondary school students dropped by 12 percent from 2007/2008 to 2016/2017 (Croatian Bureau of Statistics 2017b). Youth unemployment (15-24 years of age) was 27 percent in 2017, and in the same year Croatia reported a negative net migration of 31,799 people (Croatian Bureau of Statistics 2017a). These trends have an impact on educational planning, teacher education, school infrastructure and continuity of different programs, especially in upper primary education (grades 5-8). On a positive note, the same levels of spending that in the past were channeled to address the needs of larger cohorts could go further to support learning if spending efficiency is increased. In this context and given the need to increase the productivity of Croatian workers just to maintain current living standards due to the shrinking population, equipping and re-equipping Croatian children, youth, and adults with the right competencies to lead highly productive lives become even more central to the country's development.

**A child born in Croatia today will be 72 percent as productive when she grows up as she could be if she enjoyed complete education and full health** (World Bank 2018). According to the Human Capital Index, Croatia places 36th out of 157 countries, higher than average for the region and its income group. Children in Croatia can expect to complete 13.3 years

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<sup>1</sup> The Government of Republic of Croatia, Strategy of Education, Science and Technology – Nove boje znanja



of pre-primary, primary and secondary school by age 18. However, when years of schooling are adjusted for quality of learning, this is equivalent to only 10.8 years of education: a learning gap of 2.5 years.

**The performance of Croatian grade 4 students in math and science is comparable or higher than the EU average.** The performance of Croatian students on the recent Trends in Mathematics and Science Study (TIMSS) improved significantly, from 490 in 2011 to 502 in 2015. Results in math place Croatian fourth graders just above the TIMSS average, while Croatia's average in Science compares even more favorably to the EU average (533 vs. 500). Boys outperform girls by 8 points in math and by 2 points in science.

**On the other hand, the performance of Croatian 15-year-olds on the Programme for International Student Assessment (PISA) raises concerns, with 32 percent in 2015 considered low performers in math, nearly 25 percent in science, and 20 percent in reading.** While TIMSS measures at the primary level content knowledge in connection with the curriculum, PISA measures students' skills and competencies at the end of lower secondary. Given Croatia's plan to move towards a competency-based curriculum, the PISA results are particularly concerning. The share of low-achieving Croatian students in all three subjects of PISA has been persistently high over time and is above the EU goal of 15 percent by 2020. Croatia's results are also all below the OECD average.<sup>2</sup> Only a small percentage of Croatian students scored at high levels of performance on the test. In 2015 boys performed statistically significantly better than girls in science, while girls outperformed boys in reading. Since 2006, Croatian students' results in math have remained even, while they declined in science and improved in reading. After accounting for students' results in those three disciplines, the performance of Croatian students in collaborative problem solving is one of the lowest among PISA-participating countries and economies (OECD n.d.).

**PISA 2015 results indicate high levels of inequality in education outcomes in Croatia.** While one of the goals of the Croatian Strategy of Education, Science and Technology is "quality education available to everybody under equal conditions", nearly 45 percent of pupils from the lowest socioeconomic quartile fail to achieve the basic level of proficiency in math, compared to only 15 percent from the top quartile. A similar performance gap is seen in science and reading skills. The PISA science results show that a performance gap between the top and bottom socioeconomic quartile is about 87 PISA points, equivalent to three years of schooling. The PISA math results show that a large proportion of Croatian students are "functionally innumerate" compared to many of its EU neighbors.

**In secondary education, inequities and other challenges contribute to lackluster student performance.** In general, wealthier students attend general secondary education schools (gymnasiums) that perform better in PISA, and students from lower socio-economic status are overly represented in 4 and 3-year Vocational Education and Training (VET) schools, which often perform at the bottom of the PISA scale. Average scores on the Matura exam (2009) were also closely correlated with municipality wealth. Students from the poorest municipalities were more likely to fail the Matura than their counterparts in wealthier areas of the country.<sup>3</sup> Additionally, the percentage of students taking the Matura exam decreases in line with municipality wealth levels. In the wealthiest municipality more than 60 percent of students sat for the Matura in comparison to the poorest municipality where only approximately 40 percent of students did. Inequities are also found in availability of secondary school offerings. While approximately 37 percent of primary schools operate in double shift, at the secondary school level this proportion jumps to 60 percent.

**Inequities are evident starting in early childhood education and care.** In 2016, 75.1 percent of Croatian children 4 to 6 years of age attended ECEC programs, the lowest percentage in the EU, which has an average enrollment rate of 95.5

<sup>2</sup> While Croatia is not part of the OECD, the comparison with OECD countries can be a useful benchmark for PISA and is common given that PISA is an OECD initiative.

<sup>3</sup> World Bank, 2018 (using 2009 data)



percent (European Commission 2018). Participation in ECEC by children six months to three years of age was significantly lower (Eurostat 2018). When contrasted with the EU target for 2020 and Croatia's own 2014 Strategy for Education, Science and Technology goal of 95 percent of 4-6 year-olds enrolled in ECEC, the country's progress in this area raises concerns. While ECEC participation in Croatia has grown at a faster pace than some peer countries in the last fifteen years, this increase has been too modest for the country to catch up to its neighbors. High inequity is at the center of ECEC challenges in Croatia and is manifested along geographical, socio-economic and minority status lines. (Bouillet 2018). Children from underdeveloped regions, rural areas, poor families and the national minority face the greatest barriers to access. While ECEC benefits are greater for children of disadvantaged backgrounds (e.g. poor, Roma), availability of ECEC institutions and cost of attendance represent particularly important obstacles to these same groups of children. Only 48 percent of 6-year-old Roma children were covered by some form of preschool education in 2014.<sup>4</sup> Systemic bias against the most vulnerable groups, including prioritization of enrollment for children of employed parents, aggravate disparities in ECEC.<sup>5</sup>

**ECEC disadvantages are directly associated with poor learning results later in life.** Croatian students who attended pre-primary education achieved statistically higher results in the math and science assessments of TIMSS 2015 when compared to 4th grade students who did not attend pre-primary education (Antulic and Culej 2017). This finding is corroborated by 2015 PISA data which show that in practically all OECD countries – including Croatia – 15-year-old students who had attended ECEC outperformed students who had not. PISA 2015 data also show that the higher the number of years spent on early childhood education, the lower the chances a student had of being among low performers in PISA (OECD 2017).

**Low annual instruction time in key subjects also contributes to subpar learning outcomes.** Compulsory education in Croatia is one of the shortest in Europe, which could be associated with below-average learning outcomes in PISA. In Croatia, children and youth spend eight years in compulsory education, plus a minimum of 250 hours the year before they enter first grade in a mandatory pre-school program, graduating compulsory education at the age of 14-15. In most European education systems, full-time compulsory education lasts 9-10 years ending at the age of 15-16. Croatia consistently ranks low in the EU in the number of hours of instructional time, along with Bulgaria, Romania and Montenegro (European Commission/EACEA/Eurydice 2018). Table 1 indicates the average norms in instructional hours and where Croatia lines up with other EU countries.

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<sup>4</sup> Operational Programme Under the Investment for Growth and Jobs Goal

<sup>5</sup> Bouillet, 2018



**Table 1: Minimum Recommended Instruction Time in the EU, 2017/2018**

Level of Education/EU Countries	# Instructional Hours
<b>Compulsory Education</b>	
23 countries, including <a href="#">Croatia</a>	<7,600
12+ countries	7,616-11,240
<b>Primary Education</b>	
Average minimum instruction time per notional year	727
<a href="#">Croatia</a> , Bulgaria and Romania	<500
Denmark, Ireland, Luxembourg, the Netherlands	>900
<b>General Lower Secondary Education</b>	
Average minimum instruction time per notional year	857
<a href="#">Croatia</a> <sup>6</sup> (lowest # of instructional hours in the EU)	637
Denmark, Spain, the Netherlands	1,000+

Sources: European Commission/EACEA/Eurydice, 2018

**To address these educational challenges, the Government of Croatia requested the Bank’s support to increase instruction hours and improve quality of education.** While results can be mixed, evidence shows positive results in learning have been achieved in many cases. A rigorous impact evaluation on extending instruction hours demonstrates considerable learning gains from the whole day school model in Uruguay, equivalent to almost an additional year of schooling (Cerdan-Infantes & Vermeersch, 2007). Recent studies confirm that increased allocation of instructional time can also have a greater effect on slow learners, low performing students, and disadvantaged students due to socio-economic or immigrant background (Patall et al. 2010, Cotton 1989, Brown and Saks 1986) (Mazzarella 1984, Silva 2007, Llach, Adrogué and Gigaglia 2009, Grissmer et al. 2000, as cited in OECD 2012 and Gromada and Shewbridge 2016). The World Bank study on whole school model in Mexico looked at the evolution of learning outcomes from 2007-2016. The study shows that increasing instructional hours has a positive effect on student performance, and the effect is even greater among schools with a higher level of marginalization (Garza 2018).<sup>7</sup> This evidence suggests that the effect of increased instructional hours could be greater if the program includes a focus on disadvantaged students in Croatia.

**Better learning results were noted in cases where increased instruction time was associated with improved teaching, curriculum, and increased time on task.** What matters most is the efficiency in the use of time, more than the amount of time allocated to instruction (Farbman 2015). Emphasis should be placed on time on task and an attempt made to reduce losses, often due to inadequate use of classroom time (e.g., poorly trained teachers, inexperienced teachers who require extra time to manage the classroom, teachers who spend significant time on other non-teaching activities, scarcity of learning resources, etc.), or due to teacher absenteeism or factors at the school level (e.g., cancellation of classes due to

<sup>6</sup> The common terminology used in Croatia for its education system is lower primary (grades 1-4) and upper primary (grades 5-8).

<sup>7</sup> For example, in 2015, the proportion of students placing at the bottom level of the performance scale in math at a national examination of 6<sup>th</sup> graders was reduced by 4.13 percent for students who attended whole-day schools in the most disadvantaged areas of the country versus those who attended regular schools (Hoyos 2018).



weather conditions) (Abadzi 2007).

**Given the substantial cost implications of expanding instruction time, detailed cost analyses are recommended to countries considering this path.** One estimate indicated that, on average, a 10 percent increase in instruction time is accompanied by a 6 to 7 percent increase in costs, and that prolonging the school day is usually cheaper than prolonging the school year (Silva 2007, as cited in Gromada and Shewbridge 2016). Furthermore, based on the limited evidence on cost-effectiveness of increased instruction time, caution and detailed studies are recommended when evaluating this option as a driver of student performance (Levin et al. 1984 and 1987, as cited in Gromada and Shewbridge 2016).

**The Croatian school network presents multiple challenges for expanding instructional hours in an efficient way.** The 2014 National Education, Science and Technology strategy emphasizes efficiency of the system and enhanced financing as a key principle. The strategy also prescribes changes to the structure of compulsory education, and discusses preconditions for the changes (e.g., availability of physical space). However, the current network presents multiple challenges: (i) more than 35 percent of all Croatian schools operate in two shifts or more, (Figure 1), (ii) the number of teachers and small schools is increasing despite the persistent decline in school age population, and these schools are becoming smaller and smaller (Figures 2, 3, and 4).<sup>8</sup> Schools that run in double shifts, and sometimes even in triple shifts, make increasing the number of instructional hours per day more difficult. Small schools are inefficient from both a cost and a quality perspective. It is expensive to keep running half-empty buildings and classrooms with low student-teacher

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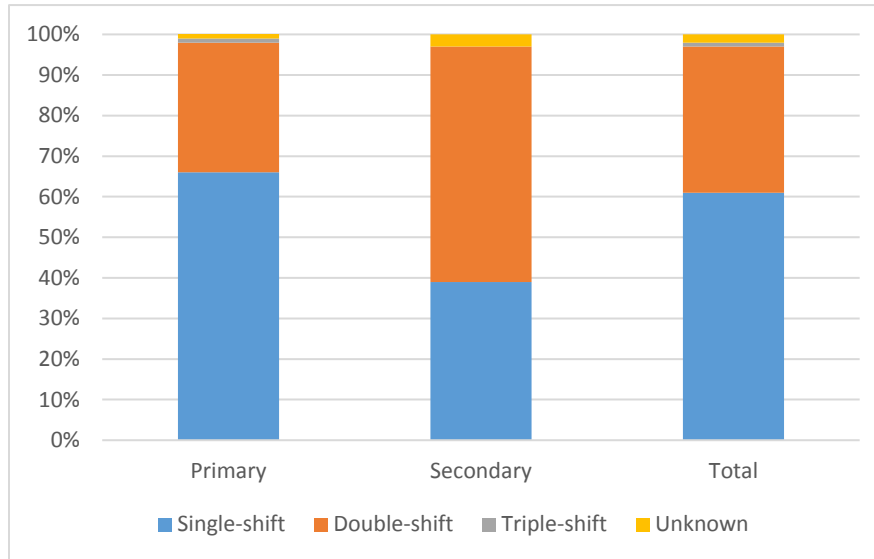
<sup>8</sup> In Croatia, the student population is declining, and the number of teachers is increasing. For example, the number of primary school students in Croatia declined by 22 percent and secondary school students dropped by 16 percent over the last 20 years (from 1996/1997 to 2016/2017). On the other hand, the number of primary school teachers in Croatia increased by 13 percent and secondary school teachers increased by 74 percent.





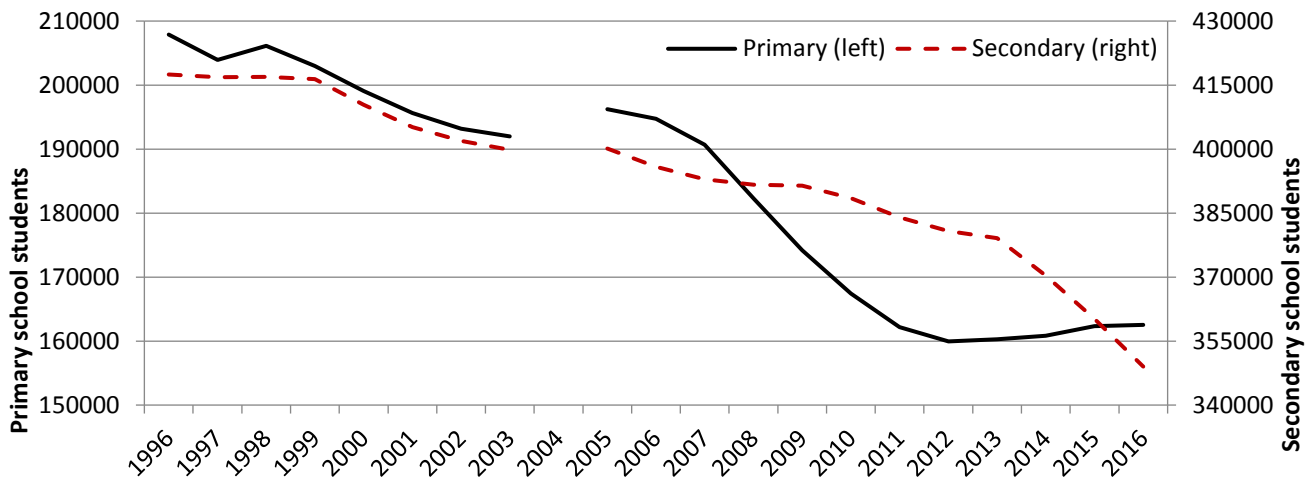
ratios, and it is a challenge to attract talented teachers and principals to very small schools.

Figure 1: Distribution of schools per type of shifts



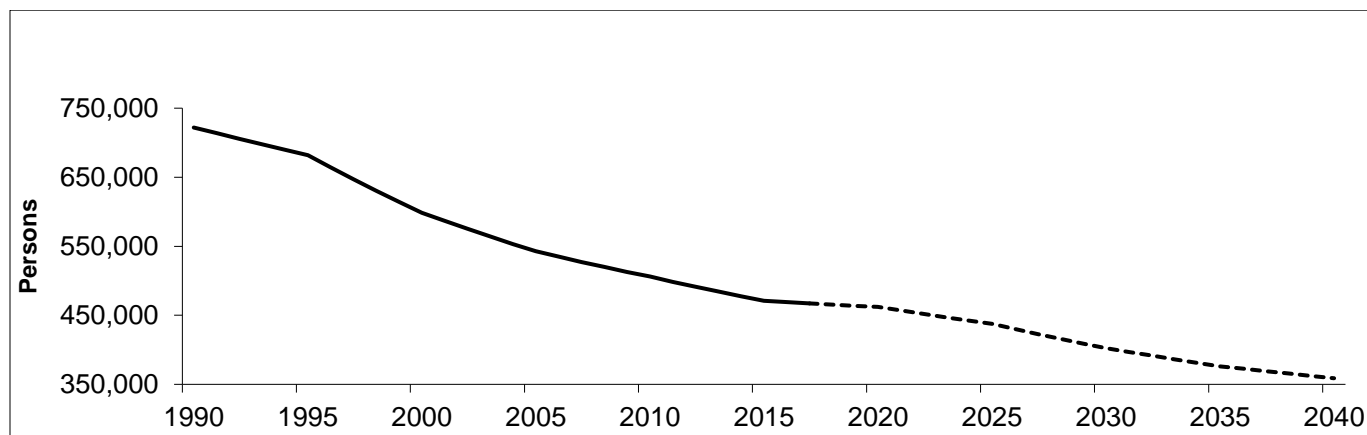
Source: Government of Croatia data

Figure 2: Decline in student population 1996-2016



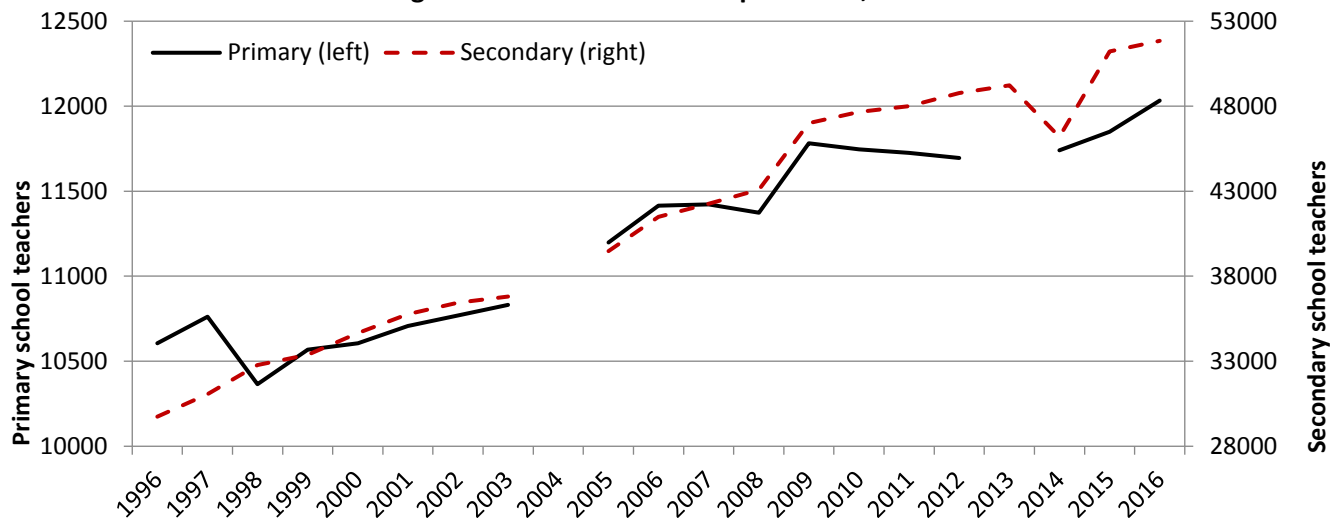
Source: UNESCO

Figure 3: Actual and Forecasted school-age population for Croatia, 1990-2040



Source: UN Population Revision, 2017 Revision

Figure 4: Increase in teacher personnel, 1996-2016



Source: UNESCO

**Small schools and small class sizes are common in many transition countries facing population decline, leading to education systems with a disproportionately large number of schools, teachers and classes without commensurate gains in learning** (Coupe, Olefir and Alonso 2016). Studies show no clear effect or at best a small positive effect of school size on academic performance (Scheerens et al., 2014; Humlum and Smith, 2015; Gershenson and Langbein, 2015). Similarly, international evidence on class size, including studies using different methods to identify causal class-size effects, often find no strong effects of class size, indicating that small class sizes are not a major driver of student achievement (Hanushek and Woessmann 2011). International evidence on double shifts find that students in afternoon classes perform significantly worse (Lusher and Yasenov 2016). This evidence suggests that transitions from multiple shifts to single shifts could help close the achievement gap between students in morning and afternoon shifts.

**Limited use of data and modern policy instruments hinder Croatia’s capacity to implement evidence-based change.** Currently, Croatia only conducts student standardized assessments at the end of secondary education (Matura exam). While exams in certain grades and disciplines exist, they are not systematized. Without consistent data about student and system performance across time, policymakers and teachers miss the opportunity to correct course in a timely manner



and assure the quality of the system. Croatia is part of a trend in the ECA region, where several countries often “operate in the dark,” foregoing the chance to systematically collect data on student learning outcomes. Well-designed and planned assessments, in addition to providing information about particular strengths and weaknesses in students’ knowledge and skills, can offer valuable information about student characteristics associated with student achievement, information on learning conditions in classrooms, opportunity for secondary analyses, etc. Assessments can provide a lever for reform and provide key information to decision makers and other education professionals such as curriculum developers, textbook writers, teacher trainers, etc., (Kellaghan, Greaney, and Murray 2009). Currently, a few evaluation tools that aim to measure specific aspects of student and teacher performance and wellbeing<sup>9</sup> are being tested in connection with the ongoing curricular reform. Going forward, the government expects to emphasize formative assessments, so that teachers are able to identify areas for improvement in teaching and learning in a timely manner.

**A centralized management and planning approach with an over-reliance on legislation as the solution to most problems crowds out an understanding of what makes implementation feasible at the school level.** Policy instruments, such as incentives, per-student funding, varied management approaches, capacity building, or using evidence to build broader stakeholder support and inform policy are underutilized. While almost all countries in the region have introduced per-student financing to incentivize local actors to downsize their network of schools in response to falling student numbers, Croatia has not and still focuses on financing inputs (e.g., teachers).

**Limited use of modern public sector management approaches limits autonomy of local actors, efficiency of the system, and local accountability.** The Croatian education system is still run according to detailed and centralized norms, which limit the autonomy of local authorities in many ways. Schools, cities and municipalities must follow central norms that even specify the number of cleaning personnel, cooks (1 per 75 hot meals prepared), janitors, school accountants, and librarians to be hired per school, which impede local solutions that may be more appropriate and cost-effective

**The 2014 National Education, Science and Technology strategy recommended the adoption of an array of policy solutions and mechanisms for greater quality assurance.** The new World Bank education project will support and strengthen ongoing initiatives under the 2014 National Education, Science and Technology strategy. Croatia has been implementing a series of initiatives under the strategy, such as curriculum reform, introducing modern learning equipment, and formative assessment. The proposed Project will design a program that will strengthen these initiatives and help Croatia to leverage its existing resources to achieve its long-term vision.

**The new World Bank education project will build on the Bank’s previous and current engagements in this sector in Croatia.** The proposed new project will advance the work on school optimization initiated by the previous project, such as reduction of the number of schools operating in multiple shifts (Loan no. 73320-HR, 2006-2011). It will also build on the ongoing National Development Strategy RAS, which has produced a detailed note on the state of the education system in Croatia, and on the regional RAS underway in Slavonia, focused on growth and jobs, which has an important education component. By focusing on primary and secondary education, the project will complement previous World Bank-supported work in higher education, carried out through an ASA and a RAS since 2011 and that focused, among other topics, on improving the financing of higher education. Dialogue with the Croatian counterparts over the past few months has made it possible to shape the project to closely meet the needs of the country’s education system.

#### Relationship to CPF

**The project is carefully aligned to the new Country Partnership Framework (CPF) currently under development and**

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<sup>9</sup> Student problem solving skills, student and teacher motivation and satisfaction with their education experience.



**expected to be approved in April 2019.** It is anticipated that the new CPF's education component will discuss the need for greater quality and efficiency of basic education with a focus on expanded instruction time. The project will support improvements to the school network to reduce costs and increase the number of hours students are able to spend in school, aiming to improve student learning. By helping to strengthen institutional capacity of the education sector, the project would contribute to a more agile and modern education system and to better human capital outcomes, which is central to the upcoming CPF.

### **C. Proposed Development Objective(s)**

To improve the quality and efficiency of education through increased instructional time and better time on task, school optimization and better school management

#### Key Results (From PCN)

This proposed Project is expected to achieve the following results: (a) improved teaching and increased instruction time; (b) Improved learning environment; (c) strengthened evaluation system; and (d) improved efficiency and accountability.

The Project's achievement of the PDO will be measured via the following indicators:

- An increase in instructional hours in selected schools (quality)
- Number of students benefiting from improved learning environments (quality)
- An increase in the number of schools funded on a per-student basis (efficiency)
- An increase in average class size/number of students per class (efficiency)

Intermediate indicators to measure the progress of each component will be developed during the preparation phase. They could include the following:

Intermediate indicators:

- An increase in time-on-task in classrooms in selected schools (Component 1, or C1)
- Revision to the minimum instructional hours policy (C1)
- An increase in principals' knowledge and skills to manage increased school hours (C1)
- Number of classes consolidated by within school optimization (C2)
- Number of schools consolidated by school network optimization (C2)
- Number of schools operating double/triple shifts transitioned to single shift (C2)
- Number of renovated and modernized classrooms (C2)
- Number of schools that created inclusive environments (C2)
- Percent of schools receiving per/student financing/block grants to better manage school needs at local level (C2)
- Percentage of schools receiving per-student financing that implement a school report card (C2)
- Number of teachers trained in the use of selected formative tools (C3)
- Strengthened teaching assessment tool (C3)
- School-level database on the use of time introduced (C3)
- Annual report on progress of implementing increased school hours (C3)

In the medium to long term, the project is expected to contribute to improving the productivity of the Croatian labor force through better-educated cohorts of students, in line with government goals and the Country Partnership Framework.



## D. Concept Description

The proposed Project will focus primarily on improving quality and efficiency at primary and secondary education.<sup>10</sup>

It will consist of four components:

- (i) Increasing instruction hours at primary education
- (ii) Optimizing the school network and improving the learning environment
- (iii) Strengthening learning assessments
- (iv) Project management, monitoring and evaluation

### Component 1: Increasing instruction hours

This component will finance the activities to increase instruction hours of primary schools in Croatia. The model would have the overall goal of improving quality of teaching by increasing time on task. This activity would be phased in to introduce gradual structural reform and would take into consideration availability of physical space, of human resources, and engagement of various stakeholders fundamental to the success of the proposed reform, such as teachers, principals, students and families, and different levels of government.

#### *Subcomponent 1.1 Pilot a model of increased instructional hours*

This subcomponent will develop and pilot a model of increased instructional hours in the school day. The pilot(s) is likely to be implemented in different regions of the country in schools with different characteristics, and it will serve to inform broader national policies on expanded instructional hours. The model will be inspired by successful experiences of countries that have adopted similar policies before.

#### *Subcomponent 1.2 Principal and teacher training on managing the transition to single shifts and increased instructional time.*

This subcomponent will finance activities to provide training for principals in school management and instructional leadership and train teachers in managing increased instruction hours. Principals will be trained in setting school learning goals, overseeing improved time on task, and managing personnel, school environment, and budgets for a single shift setting. The training will also improve teachers' understanding and application of efficient use of instructional time.

#### *Subcomponent 1.3 Revision of teaching and staff norms based on international practices*

This subcomponent will finance the activities to revise teacher and staff norms to support an increase in instructional hours. Revised norms would introduce more efficient time allocation of teachers, use of teacher's time, and timetabling of subjects and extracurricular activities offered closer to those of well-performing systems in the EU. The revised norms will be aligned with the ongoing curriculum reform.

#### *Subcomponent 1.4 Impact evaluation of teachers' use of instructional time*

This subcomponent will finance activities to incorporate an impact evaluation focused on the use of instructional time by teachers and on its potential impact on student learning. The evaluation is likely to focus on time-on-task and other activities introduced as part of the increase in school hours. This subcomponent will also finance the preparation of an annual report on the progress of implementing increased instructional time in Croatia.

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<sup>10</sup> Secondary education is not compulsory in Croatia. In this project, secondary education includes technical and vocational training schools, and gymnasiums.



## **Component 2: Optimizing the school network and improving the learning environment**

This component will finance activities to improve efficiency in primary and secondary education through optimization of the school network, enhanced allocation of funds to schools and greater participation and accountability at the local level.

### *Subcomponent 2.1 – Introduction of per-student financing model*

This subcomponent will introduce per-student financing/block grants to schools in order to improve efficiency and allocation of resources. The per capita formula would allow for supplements to ensure equity for example, in regions with smaller populations. This type of financing model, along with more autonomy to make decisions on budget spending per an approved school improvement plan, will enable schools and local authorities to make better use of their resources. The subcomponent will also finance an implementation firm to provide training at the school level in school improvement plans, transparent management of budgets, monitoring and reporting, and community participation.

### *Subcomponent 2.2 – Introduction of mechanisms for community participation, monitoring and reporting*

This subcomponent will introduce mechanisms for community participation, monitoring, and reporting for accountability of quality education service delivery. This might take the form of parent involvement, monitoring mechanisms, and school reporting on the use of their per-student grants and school performance possibly through a simple school report card.

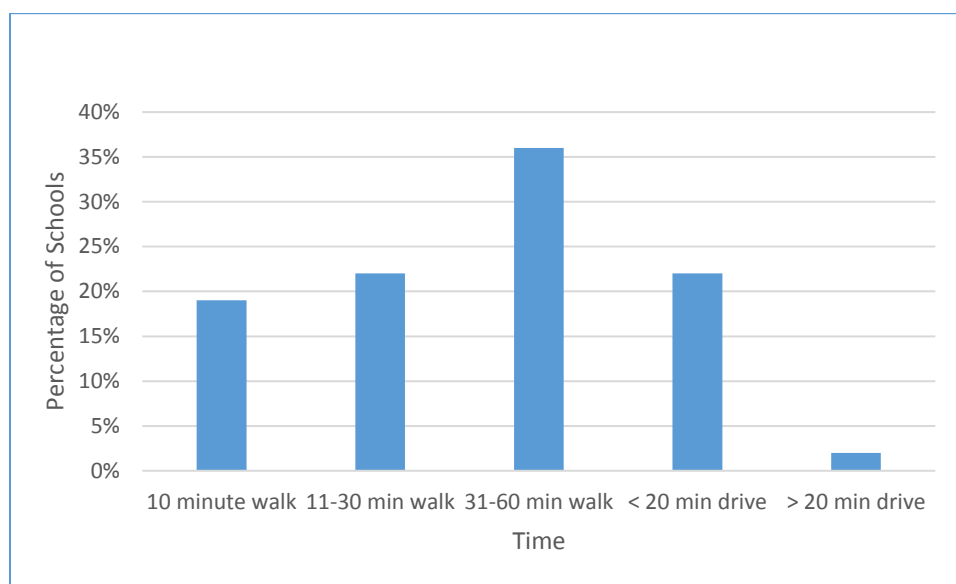
### *Subcomponent 2.3 – Preparation of school network optimization plan*

This subcomponent will finance the activities to comprehensively analyze the network of schools in Croatia in order to identify areas for greatest efficiency gains in primary and secondary physical infrastructure, human resources, and education management. Based on the analyses, this subcomponent will develop a school network optimization plan.

### *Subcomponent 2.4 – Right-sizing school infrastructure and teacher/student allocation*

This subcomponent will support optimization of the school network beginning in a phased manner to targeted schools. It will include within school optimization (Phase 1) and school network optimization (Phase 2). Within school optimization will consolidate classrooms to reduce the number of classes within schools. Initial simulations show 12.1 percent of classes could be consolidated if combined with another class with a maximum class size of 28 students under Phase 1. Under Phase 2, schools located within close proximity could be merged. In Croatia, a large number of primary schools are located within close proximity of one another. Figure 5 shows 41 percent of primary schools are located within a 10 to 30 minute walk of another school.

**Figure 5: Average distance between schools**



Source: Government of Croatia

Schools currently offering double and triple shifts may need physical infrastructure expansion and modernization to successfully provide single shifts that could offer increased instructional hours. With the consolidation of schools in some areas and expansion of schools in other areas to enable them to offer single shifts, the flow of teachers, incentives to move where there is need, and training for teaching of subjects/grades in demand will be supported.

This subcomponent will also finance activities to enable a safe and inclusive learning environment in primary and secondary schools. It will focus on the renovation or rehabilitation of school sites to stimulate better learning for all. The rehabilitation work is expected to include minor construction, upgrading of the water supply, electricity, and the internet system. In addition, activities will finance classroom redesign, including classroom layout and furniture selection that promotes safety and inclusiveness. Croatia has already incorporated modern teaching equipment under the EU funded E-school project, therefore, teaching equipment will be purchased by the ongoing EU-funded project.

### Component 3: Strengthening learning assessments

#### *Subcomponent 3.1 Strengthening learning and teaching assessment tools*

This subcomponent will finance assessment-related activities in primary and secondary education. It will include activities to strengthen existing formative assessment tools at grades 3, 5, and 7 focused on student satisfaction with their education experience, motivation for learning and problem-solving skills. This subcomponent will finance activities to help strengthen these assessment tools in line with the ongoing curriculum reform. Emphasis will be placed on developing a mechanism to identify poor academic performers through an early warning system. This subcomponent will also finance activities to strengthen existing teacher assessment tools, with the purpose of helping teachers to better understand where to concentrate their effort and time. This subcomponent will develop a school-level database on teachers' use of time to understand better use of time spent on learning.

#### *Subcomponent 3.2: Developing and piloting a student assessment in primary education*

This subcomponent will create and pilot a national, sample-based student assessment at grade 8. The main purpose of the assessment would be to collect data on a system level about student performance in 1-3 disciplines (e.g., Croatian



Language, Math, Science) to gauge quality of education. The assessment would not be high-stakes and would not have direct consequences for students, but would help shed light on challenges and opportunities on a systematized manner, helping to inform policies and improve practice. This subcomponent is expected to take place in the second half of the Project.

**Component 4: Project management, monitoring and evaluation**

The component will finance the following activities: staffing, office rent, financial audits, project baseline study, monitoring and evaluation, and capacity building activities.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

Summary of Screening of Environmental and Social Risks and Impacts

Based on the preliminary assessment of project activities, the following ESSs would likely be applicable to the Project:

- ESS 1) Assessment and Management of Environmental and Social Risks and Impacts;
- ESS 2) Labor & Working Conditions;
- ESS 3) Resource Efficiency and Pollution Prevention and Management;
- ESS 5) Land Acquisition, Restrictions on Land Use and Involuntary Resettlement (in case of construction of new schools); and
- ESS 10) Stakeholder Engagement and Information Disclosure.

The project environmental risk is moderate and is predominately linked to rehabilitation, reconstruction and extension of existing schools. The impacts of such activities are expected to be manageable, temporary, reversible and of local impact, since they relate to general construction activities. The project builds on the Bank’s previous and current engagement in education sector in Croatia, therefore the capacity for managing and implementing construction activities is adequate in MoES and will be further build through the project preparation and implementation.

The ESMF will be prepared for the project to guide site specific ESMPs. In addition to identification of possible impacts and measures the ESMF will focus on OHS and safety of staff, students and visitors during civil works.

**Note** To view the Environmental and Social Risks and Impacts, please refer to the Concept Stage ESRS Document.

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