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Gentle Guidance Does it? Are Public Employment Service Recommendations Affecting Adjustment of IVET Capacities in Croatia?

Matković, Teo

teo@idi.hr, Institute for Social Research in Zagreb

Abstract

Since 2010 the Croatian Employment Service (CES) annually produces detailed regional “Recommendations for enrolment and granting policy in education”. Schools, Counties and Ministry of Education are to consider those recommendations in their planning, but no compliance mechanism was mandated for this labour market information input. This paper analytically explores the way in which the education system responds to outside signals by using a course-school-year panel of entry places and actual enrolments in publicly-funded VET in Croatia in 2013–2021 period, and respective set of county-level recommendations. We estimate whether either the observed changes in administratively defined places in VET courses, or actual enrolment are responsive to recommendations. Both descriptive table and analytical models indicate a certain level of responsiveness of education system stakeholders to recommendations. However, it is a weak one, with institutions often adjusting capacities in opposite direction, with demographics and unfilled capacities playing a greater role in determining change. The direct effect of recommendations on enrolment demand was not identified. Such findings are coherent with a statist skill production regime with corporatism at the margin, and with general resilience of the institutions responsible for VET supply to external input.

Keywords

skill intelligence, VET capacity adjustment, enrolment policy recommendations, panel analysis, Croatia

1 Introduction

Vocational education systems throughout the Europe are facing ever growing challenges to remain relevant and capacitated in face of external shocks and factors, such as economic, technical and demographic changes (European Centre for the Development of Vocational Training., 2018). Within the specific national contexts, those are addressed by modernization via a plurality of instruments (European Centre for the Development of Vocational Training., 2018; Tütlys et al., 2022). The stakeholders and instruments involved are largely contingent on the national skill production regimes (Busemeyer & Trampusch, 2012), usually layering new fixes upon their own institutional legacy.

The targeted regional labour market and skill intelligence can play a crucial role in this change, as stressed in section 2.3 of the 2016 New skills agenda for Europe (COM(2016 381). This is instrumental for policymakers and education providers, but labour market information



and guidance tools are often designed to directly inform choices of general public, students and employers. There is ample and well documented use of such systems (Branka & Matouskova, 2014; European Centre for the Development of Vocational Training., 2016), in particular within the career guidance area. However, we still have scant evidence to what extent are changes in VET based on such evidence, that is, “about the way in which the system itself...responds to whatever signals it receives about demand” (European Centre for the Development of Vocational Training., 2018, p. 25)

This paper explores impact of a decade-long run of one such instrument on change in VET capacities and enrolment in Croatia. Faced with external shock of 2008 recession, a new mechanism was layered in with 2010 “Governmental decree on monitoring, analysis and forecasting of labour market needs for individual vocations”, which mandated the Croatian Employment Service (CES) to annually produce “Recommendations for enrolment and granting policy in education”. Schools, Counties and Ministry of Education are to consider those recommendations in their planning, but no compliance mechanism was mandated. While this policy instrument is exclusively based on provision of information content, with no legal, financial or organizational leverage (Howlett et al., 2020), it can be considered a shift in the logic of influence via change of dynamics within the state structure with increased influence of non-education sector. As well, the introduction of a tripartite, labour-market oriented intermediary institution in the skill production process is a feature of coordinated market economies (Busemeyer & Trampusch, 2012). The following analysis will assess whether it was effective in pivoting the VET capacity when applied consistently over a medium term.

2 Context and data

The recommendations are formulated and feed in the VET capacity adjustment process as follows. Each year, a list of programmes deemed to be in need of increased or decreased enrolment or grants is compiled for each of 21 counties (some broken in several sub-regions) by local CES labour market experts. In a typical county, list contains a few dozen VET programs with a simple recommendation to “increase” or “reduce”, whereas majority of programs remain untouched. When compiling the list, experts are due to consider broad range of quantitative and qualitative inputs such as existent planning, worker demand, employment outcomes, job mediation experience and existing education capacities. Following this mechanism, between 2010 and 2021 a total of 6183 county-level recommendations were issued for individual IVET programs, and the mechanism is still ongoing as of 2023. Recommendations are public but not widely published, and distributed to schools, counties and Ministry well before start of the capacity-determining process for the following school year. The actual number of places is formed in a vetted bottom-up fashion. Counties (which act as founders) in consultation with schools makes a plan for structure of courses and number of places, according to legal standards. Following that, the ministry in charge of education (which pays the wages) brings up the final plan and issues the decree, which initiates the enrolment process. In general, number of places in publicly funded schools is about one fifth greater than number of pupils in cohort, allowing students greater scope of choice. Yet, for this reason many vocational programs do not fill up to capacity due to pupils choosing more popular ones.

The dataset used here is a course-school-year panel of entry places and actual enrolments in publicly-funded VET in Croatia in 2013-2021 period, making up a total of 12942 observations in 283 schools over 8 years. For each case, a county-level recommendation is assigned, if one was given in the given year, as we observe change in the capacity (and enrolment) in the following year.

While scope, structure direction and change of recommendations is a subject discussed in detail elsewhere (Matković & Šabić, 2022, pp. 184–207), it will be presented here in briefest terms to provide some background. The recommendations show a considerable geographic and

temporal variation, reacting more to the business cycle and current employment challenges of certain profiles than to long-term projections or demographic limitations. Recommendations reached nadir in 2013, and turned towards pleading ever broader increase in VET programmes ever since. The increase recommendations are most often directed at short 3-year VET courses and in engineering and construction sectors, while decrease recommendations are more prevalent in four-year courses, in particular in field of economics, trade and business administration (cf. Matković & Buković, 2022 for more information on structure and development of Croatian IVET).

3 Results

The basic question in this effort is whether the observed changes in administratively defined places in VET courses are responsive to recommendations in force. That is, how often policymakers in education sector (schools, county governments and ministry of Education) do follow up those recommendations. Table 1 shows those developments on the intuitive level.

Table 1

Direction of change in number of places for IVET courses with respect to active recommendations in the current year. 2013-2021

Recommendation for change	Occurrences (number of courses to which the recommendation applies)	Number of places set for enrolment in the following year		
		Reduced or abolished	Retained	Increased
Reduce	2642	34.8%	56.4%	8.8%
No recommendation	7196	35.4%	53.1%	11.4%
Increase	3104	27.2%	56.8%	16.0%

N=12942, Chi2(4)=119,6, V=0,07

Observed outcomes indicate retention of number of places as being the most common outcome, regardless of the recommendation: number of places stayed the same in 55-57% of instances. In an environment of demographic contraction, decrease in number of places was second most common outcome, yet the prevalence of this outcome for courses with different recommendations varied only modestly. The number of places was reduced in 35% of cases where recommendation proposed so and where no recommendation was issued, and was only slightly less common (27% of cases) when recommendation was set to increase entry. Increase in number of admission places was the least prevalent outcome, and compliance with recommendations rather low: number of places grew in 9% of cases when recommendations proposed decrease, in 11% of cases with no recommendations set, and in modest 16% of cases where an increase was recommended. It is obvious that there was much change in number of places in courses over the observed period, yet this variation only weakly corresponds with the recommendations. When there was a recommendation (reduction or increase), it was adhered to in only 24.6% of cases, whereas education system acted counter to recommendations in 18.7% of cases.

Table 2

Fixed effects model: annual change in number of places

	(1)	(2)
Active recommendation: Increase	0,87*** (0,203)	0,54** (0,195)
Active recommendation: Reduce	-0,72** (0,245)	-0,55* (0,234)
Unfilled places (last year, per place)		-0,42***

		(0,013)
Demographic change (county-level, percent)		0,28***
		(0,043)
Intercept	-1,65***	0,08
	(0,087)	(0,099)
Number of observations	12942	12942
Number of groups	2123	2123
R-squared for overall model	0,0080	0,0570
R-squared for between model	0,0204	0,0813
R-squared for within model	0,0027	0,0934

Moving into regression framework, when only recommendations are fitted on the panel data (model 1), the actual change in capacity seems to follow both reduction and increase recommendation in the expected direction, yet those account for just about 2% of variance in capacity change between courses. While in the expanded model (2) number of unfilled places in the previous year proves to be more robust predictor of capacity change, and demographic change matters in the expected direction, recommendations remain weakly but significantly associated with change in number of places. According to this model, recommendation at average contributes (or reduces) 0.5 places to the given programme in the given school in the given year, net of the effect of unfilled capacities in the prior year and demographic change. Such findings are consistent in several alternative specifications, such as when number of classes is examined, model omits cases where program is abolished (places set to 0), or general education programs are added.

The final analysis explores direct effect of recommendations on actual enrolment. As recommendations are easy to understand and readily available, they can be used as a labour market information tool in career guidance, in particular due to a strong role of CES in this field (European Centre for the Development of Vocational Training., 2016). As well, recommendations might affect grant availability, making selected courses more or less desirable, regardless of number of places available.

Table 3

Fixed effects model: annual change in number of students enrolled

	(3)	(4)
Active recommendation: Increase	1,03***	0,33
	(0,228)	(0,195)
Active recommendation: Reduce	-0,62*	0,11
	(0,275)	(0,235)
Demographic change (county-level, percent)		0,60***
		(0,042)
Capacity has decreased (per place reduced)		-0,53***
		(0,016)
Capacity has increased (per place added)		0,71***
		(0,018)
Intercept	-0,70***	-0,27**
	(0,100)	(0,091)
Number of observations	11815	11815
Number of groups	1857	1857
R-squared for overall model	0,0043	0,2855
R-squared for between model	0,0274	0,2097
R-squared for within model	0,0027	0,2796

When change in actual enrolment in VET is assessed only against active recommendations (3), a similar effect is identified as with respect to change in enrolment places, with more

pronounced effect of increase. However, when change in number of places available and demographic change are added to the model (both yielding solid relationship with subsequent change in enrolment), the effect of recommendations evaporates completely (4). This indicates no direct effect of recommendations on demand for enrolment, but indirect mechanism through the effect of recommendations on change in capacity (Table 2).

4 Discussion and conclusion

The undisputable but arguably very weak effect of CES recommendation on change in school capacities instigated by education system authorities, coupled with absence of evidence about “market-based” mechanism where recommendations directly affect students’ demand is coherent with conclusion about Croatian skill production regime as statist with some concessions to corporatism at the margin (Buković, 2019). The education silo of the government for most part holding the reins of change, layering EU-originating innovations and coping with subsequent shocks in such a fashion not to endanger the core of the system (Buković, 2021; Matković & Buković, 2022).

The (modest) vector of institutional change portrayed here is top-down one (Tütlys et al., 2022, p. 55), driven by policies of (central) government, with very limited space for bottom-up agency, either from firms or individuals (though both later might vote with their feet). This bears resonance to pre-transition situation, where individual preferences had little influence on available educational options which were developed by planning agencies and their efforts (Noelke and Muller 2012:16), as the “school network”, a document determining availability of schools and sectors remains unchanged for the past decade.

As for the general contribution on very sparse literature about how the education system itself responds to signals it receives about demand via labour market information instruments, the finding about modest impact of purely informative recommendation mechanism provided by a stakeholder outside of the education system was not unexpected. The CEDEFOP study led by Jorg Markowitch offers a plausible mechanism for this: “The institutions responsible for VET supply will mediate between policy and behaviour by influencing or interpreting the intent of policy into a series of actions. These actions, however, may be more in alignment with their own interests than those of the policy-makers, and there will be ‘friction’ at each level” (2018, p. 25). Thus the outside change impulse loses its momentum. In a more cynical vein, there exists “the tendency for vocational schools to teach what they have the means to teach rather than meet the Labour market needs” (European Centre for the Development of Vocational Training., 2018, p. 7). However, a considerable sectoral change actually happened in overall structure of VET sectors over the past decade (Matković i Šabić, 2022), unrelated to recommendation mechanism.

Without going into discussion about validity of recommendations themselves (being as thorny as any forecasting-based exercise), their effect might be reinforced with some practical tweaks. The demand-side impact could be achieved by greater visibility to students (e.g. at the point of application for school entry, which is centralized via online system since 2013). The education system follow-through could be increased via introduction of compliance mechanism, such as requirement of justification for any change that runs counter to recommendations. This might as well make for another layer, as being in force for well over a decade, and not yet challenged with some fancy IT-based solution at the national level, this straightforward CES recommendation system might have become a part of institutional core of the Croatian skill production regime.

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Biographical note

Teo Matković is Senior Research Associate at Center for Educational Research and Development, Institute for Social Research in Zagreb, Croatia. His research efforts chiefly deal with education and labour market access, inequalities and transitions, in the context of the policies and reforms being implemented.