



Does the open-cell regime foster inmates' legal capability? Evidence from two Italian prisons

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Abstract

Evidence emerging from our novel in-prison survey shows that non-criminal legal problems of prison inmates mainly relate to family law matters, contract liability, and administrative procedures. The rate of subjects who face legal issues increases after imprisonment. Employing logit estimation techniques, we test the hypothesis according to which isolation due to imprisonment obstructs legal problem resolution. Results suggest that the *open-cell regime* has increased the rate of resolution of some family-related problems (divorce and child custody) while not affecting others (legacy issues). Similarly, while common problems with the public administration seem easier to solve under the open-cell regime, those related to contract liability do not. We infer that the open-cell regime may support the resolution of legal problems that usually require standardised approaches. Policy implications supporting the open-cell regime follow.

Keywords Access to justice · Legal needs · Prison conditions

JEL Classification K42 · H8 · I0

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1 Introduction

Prison organisation and life conditions of inmates are relevant for the design of effective policies able to deter crime and recidivism, while favouring prisoners' rehabilitation and social (re)inclusion.¹ Although usually associated with some (marginal and questionable) increase in deterrence,² poor prison conditions may represent violations of civil and human rights of the inmates,³ and even imply costs outweighing benefits (Hagan & Dinovitzer, 1999). In particular, scholars point towards poor prison conditions being criminogenic, favouring both recidivism (Andersen, 2015; Drago et al. 2011; Mastrobuoni & Terlizzese, 2014; Nillson, 2003), and radicalisation (Mulcahy et al. 2013).

Besides deterrence and incapacitation (Chalfin & McCrary, 2017), imprisonment causes marginality and social exclusion among inmates, ex-inmates, and their families.⁴ Imprisonment in itself, and especially in poor conditions, is a gateway to homelessness (Dyb, 2009); insurgence/deterioration of substance abuse, mental problems, and chronic diseases (Jakobi, 2005); disruption/deterioration of romantic relationships and family connections (Apel, 2016; Christian et al. 2006); and social exclusion of relatives (Besemer & Dennison, 2019; Lee et al., 2016). There is evidence that imprisonment significantly reduces both after-release employment and activity rates and incomes of ex-prisoners (Aaltonen et al., 2017; Bäckman et al., 2018). Furthermore, incarceration seems to be a driver for reinforcing inequalities in the labour market, education, health, families, and even for the intergenerational transmission of inequality (Wakefield & Uggen, 2010). Conversely, the literature on procedural justice suggests that granting a just and decent treatment during imprisonment to the inmates can result in reduced recidivism (Beijersbergen & Dirkzwager, 2016).

¹ See the extensive review of the law and economics literature provided by Avio (1998).

² On the boundless law and economics literature on prison, punishment, and crime deterrence, see—among others—Levitt and Miles (2006), Durlauf and Nagin (2011). In their metanalysis, Chalfin and McCrary (2017) verify that the estimated positive impact of harsher punishment on deterrence is relatively small. Furthermore, distinguishing between incapacitation and deterrence is very difficult.

³ European case-law shows that poor prison conditions represent a relevant theme for protection of fundamental rights. From this perspective, Italy is a kind of shameful leader since the ECHR case of *Torreggiani and Others vs Italy* (43,517/09 (ECHR, 08 January 2013) stated that poor detention conditions and, in particular, incarceration in overcrowded prisons represent a violation of article 3 of the European Convention of the Human Rights (Maculan et al., 2013). In the United States, thousands of prisoner civil rights cases are filed every year. These cases represent a preponderant part of the civil caseload of federal courts (see Eisenberg 1993, McFarlen 2016).

⁴ Although the public opinion pushes back any discussion about potential benefits of alternatives or 'softer' detention regimes and 'open prisons' where inmates can live almost like common citizens, both scholars and policy makers are aware of the negative effects of prison overcrowding and the loss of individual and social capabilities for inmates related to poor prison conditions (Andersen, 2015; Musa & Ahmad, 2015, and several contributions in Condry & Sharff Smith, 2013).

In this framework, surprisingly, very little attention has been paid to a specific adverse effect of imprisonment: the reduced—or even nullified—capability of prison inmates to manage their legal needs.⁵

Inmates are in a paradoxical position of being within the (criminal) justice system while experiencing systematic obstacles to access justice for issues other than their criminal case.⁶ Because of restrictions on freedom, they face relevant limitations in their actual legal capability and difficulties in managing their legal needs.⁷ This represents a serious problem of fairness and equity, but also frustrates the rehabilitation purposes of punishment, finally increasing the social costs of imprisonment.⁸

This study is a first attempt to fill this gap. It provides evidence emerging from a survey aimed at mapping both the legal problems and resolution attitude of inmates in two Italian correctional facilities located in Milan: San Vittore and Bollate. The survey was carried out in 2014 within a peer setting operational framework where some selected interviewer-inmates administered the questionnaires to their prison mates. The resulting original dataset collects micro-data from about just under 900 inmates.

We use for the first time this survey dataset to empirically investigate how both institutional/organisational features of the hosting facility and inmates' individual features affect the likelihood of solving legal problems they had at the moment of incarceration. In particular, we exploit the introduction of the *open-cell* regime to identify the effects of fewer restrictions in the everyday life in prison on the inmates' effectiveness in managing and resolving legal issues. According to this regime generally applied in Italy starting from 2014, prisoners are free to move within the prison for a relatively long time during the day, thereby accessing internal infrastructures, undertaking social relations, and—most importantly—accessing prison facilities.

Descriptive statistics suggest that imprisonment in itself represents an obstacle to the access to justice to fundamental rights and citizenship; it also strongly limits the possibility of managing and resolving legal issues that typically emerge in the areas of family law, private law, and administrative procedures. We performed logit regressions to estimate whether the introduction of the open-cell regime is associated with changes in the solution rate of inmates' existing problems at the time of incarceration. We use backward stepwise techniques to select the most relevant problems faced by the inmates, those that are more easily solved since the introduction

⁵ The debate about access to justice and prison typically focuses on issues related to the right of defense and associated legal tools, including legal aid (Mattei, 2006, Varano & De Luca, 2007).

⁶ Typically, prisoners either have a lawyer who looks after their criminal case, or had one before being definitely convicted, are in touch with the surveillance judge or, sometimes, with the public prosecutor or the investigating magistrate, and are also exposed to judicial legal language and procedures.

⁷ These obstacles are well illustrated by Grunseit et al. (2008), which is the only access-to-justice survey involving prisoners to our knowledge. However, it has the limit of being based on a very small number of interviews with inmates who are detained in Australian prisons.

⁸ Inaccessibility to rights and legal remedies becomes an ancillary penalty that—though not prescribed by the law—increases the afflicting dimension of imprisonment. On the serious consequences of inaccessible legal remedies and ineffective right protection, see Pleasence et al. (2004), Pleasence et al. (2007), Pleasence et al. (2008), and Stratton and Anderson. (2008).

of the open-cell system, and the relevant individual characteristics affecting problem resolution. Results suggest that the establishment of the open-cell regime is likely to increase the rate of problem resolution, specifically of issues that require more ‘standardised’ resolution procedures, such as divorce, child custody, and problems with the public administration. However, more complicated and ‘individual-specific’ disputes, such as those related to legacy and contract liability, do not benefit from inmates’ greater freedom. We will discuss relevant policy implications in favour of a wider and more effective implementation of the open-cell regime.

The remainder of this paper is organised as follows. Section 2 illustrates the questionnaire and its administration and the evidence resulting from statistics. Section 3 presents the methodology and results of the empirical analysis, and Sect. 4 concludes the study.

2 The survey

For the purposes of designing our survey, we started from the literature on access to justice and legal needs of ordinary people. Common people in Europe (CEPEJ, 2014 ; FRA, 2011), the United States (US Dept of Justice, 2013), Canada (CFCJ, 2012), and Australia (AAGD, 2014) typically complain of the lack of prompt, effective, and affordable legal remedies, especially in specific legal areas including family and commercial law; and the adoption of simple and accessible administrative procedures.⁹

Based on this evidence, we developed a multiple-choice questionnaire aimed at mapping the civil/administrative legal needs of inmates, including the following six sections¹⁰:

Detention It frames the position of the respondent as a prisoner (judgement phase—i.e. waiting for first judgement, appellant, definitely convicted, duration of conviction, residual duration of imprisonment, recidivism, detention regime, lawyer, etc.).

Citizenship and family It frames personal and social features of the respondents (citizenship, gender, age, religion, education, language comprehension, family connections, etc.)

⁹ Nonetheless, there are a limited number of bottom-up contributions that explore ordinary legal needs and obstacles to access to justice through investigations directly involving people. Among the survey-based contributions, we number Genn (1999) and Genn and Paterson (2001) for the United Kingdom; AM. BAR ASS’N (1994) and LEGAL SERVS. CORP. (2005) and (2009) for the U.S.; Currie (2006), (2009a), and (2009b) for Canada; and Coumarelos et al. (2006) for Australia.

¹⁰ The questionnaire is available upon request. Before administration, the questionnaire has been checked for coherence and understandability purposes. In particular, volunteers who are used to work with prisoners, rehabilitation staff members from Bollate and San Vittore, and some prisoner-volunteers who are affiliated to the Association *Articolo 21* of Bollate have been asked to provide comments and suggestions about the questionnaire. For the prison of Bollate, an additional section about the use of prison services by the inmates has been included. Related evidence is not discussed in the present summary.

Pending non-criminal legal issues that arose before the detention It investigates which kind of pending non-criminal legal problems the inmate had at the moment of incarceration (debts/credits, commercial/private law/tort disputes, family law issues, problems with the public administration, etc.).

Resolution of problems that arose before the detention It investigates to what extent and how non-criminal legal problems that were pending before detention were resolved during the detention.

Non-criminal legal issues that arose during the detention and their resolution It investigates what kind of non-criminal legal problems the inmate has had during the imprisonment, to what extent, and how these problems have been resolved.

Fundamental rights It investigates whether the inmates experienced problems related to the fundamental rights (health, discrimination, and education) and, if this is the case, how they legally proceeded.

In the spring of 2014, all the inmates detained in the correctional facilities of Bollate and San Vittore (except those in the solitary confinement regime) were invited to participate in the survey. Given the high presence of foreigners, we opted to provide the questionnaire in different languages (Italian, Albanian, Arab, Romanian, French, English, and Spanish). The questionnaire was anonymous. Participants in the survey were provided with a brief letter which explained the aims of the survey. Inmates were invited to sign the letter both to confirm that they had understood the objectives of the research and for privacy law compliance purposes. In the letter, the anonymity of the questionnaire was particularly emphasised.

To favour participation in the survey, not only the anonymity of the respondents but also a particular mechanism of questionnaire collection that does not involve any member of the prison staff was guaranteed. To favour the possibility of the inmates to ask for clarifications about the questionnaire without disturbing the aim of avoiding any interference by members of the prison staff, we opted for a peer-setting administration. In particular, two inmates were selected in each prison section to be trained to administer the questionnaire to their mates.¹¹

The response rates, although highly variable by section, have been excellent overall: 44.5% for Bollate and 37.1% for San Vittore. Certainly, the individual effort devoted by the interviewer-inmates mattered in determining the response rates; in some sections, the response rate was extremely high, as in the female section of Bollate (76.7%) and in the section of hospitalised prisoners in San Vittore (88%).

From a methodological perspective, this peer-setting approach to administer the questionnaires seems to have been a good choice (moreover, we do not know of any precedent for surveys in prisons). Multivariate analyses allow controlling for multiple interviewers: their different motivations and abilities do not represent a problem for correct data analysis. The interviewer-inmates have also been debriefed to

¹¹ Interviewer-inmates have been selected among prisoners who can move within the section without restrictions because performing specific tasks ('scribes', librarians, etc.). Before starting the survey, questionnaires filled by interviewer-inmates have been used to identify and correct residual ambiguities (pilot-phase).

understand both the difficulties they faced during the questionnaire administration and the respondents' general reaction. Prisoners generally appreciated the aims and methodology of the survey, especially because many of them consider access to justice as a sensitive topic.

The quality of the responses (consistency, sample variance, etc.) and the overall number of observations (893 respondents: 526 from Bollate and 367 from San Vittore) make the resulting dataset a reliable starting point to investigate access-to-justice problems in prison. According to the national statistics,¹² the number of respondents to our survey corresponds approximately to 1.7% of the total population of inmates in Italy (53,623 prisoners at the end of 2014), and 22.5% of the prison population in Milan (3966 prisoners at the end of 2014). The present study is the first output based on this original dataset.

Table 1 summarises the main institutional features of the two correctional facilities. Table 2 encapsulates both individual and social features of the respondents and information about their detention (for details about prison organisation by sections, see Table 8 in the Appendix).

By comparing the institutional information about Bollate and San Vittore and the questionnaire responses of the inmates, it is clear that these two correctional facilities are very different.

Before looking at the evidence, it must be recalled that Bollate is a relatively new facility, established in 2000 as a *prison* aimed at hosting prisoners who are definitely convicted (*casa di reclusione*). Moreover, rehabilitation projects related to long-term imprisonment have been specifically developed in Bollate from its foundation. Conversely, San Vittore is an ancient penitentiary founded in 1879, currently used as a *jail* where arrested people and defendants are also into custody (*casa circondariale*).

Despite the institutional differences between the two correctional facilities (prison vs jail), given the problem of overcrowding (in 2014 in Italy, out of every 100 available places in prisons, 105.6 were occupied), arrested people and defendants are often hosted in Bollate while long-term detainees are hosted in San Vittore. This can be easily estimated by comparing the number of inmates in the two facilities at the moment of the survey with the facilities' accommodation capacity (1184 vs. 976 in Bollate and 988 vs. 753 in San Vittore, as shown in Table 1).

A further organisational difference that this study focuses on concerns the so-called open-cell regime. According to the open-cell regime, inmates (except those under rule 41 *bis* o.p.) can move in proper common spaces and are involved in individual/social activities during the day while being confined in their cells during the night. Although it was implicitly stated in the Penitentiary Law of 1975 (Law 54/1975), this regime has never been applied. After the European Court of Human Rights ruling on the case of *Torreggiani and Others v Italy* (application no.

¹² Statistics of the Ministry of Justice (Prison Administration). Data for year 2014 (permanently available at <http://www.ristretti.it/areestudio/statistiche/>). Concerning the prison population, note that although the overall imprisonment rate in Europe has continued to fall starting from 2012 (from 125.6 prisoners per 100,000 inhabitants in 2012 to 102.5 inmates per 100,000 inhabitants in 2018), some countries including Italy, shows an increasing trend from 2014 (+7.5% only in the biennium 2016–2018).

Table 1 Bollate and San Vittore: institutional features

Facility	Bollate	San Vittore
Type	Casa di Reclusione (Prison)	Casa Circondariale (Jail)
Year of foundation	2000	1879
Sections	6 for males + 1 for females	7 for males (2 not working) + 1 for females
Accommod. capacity	976	753
Inmates ^a	1184	988
Type of inmates	Defendants, convicted people	Arrested people, defendants, convicted people
Officers ^a	450	654
Rehabilitation staff ^a	15	13
Network officers ^a	4 (since 2005)	3 (since 2005)
Medical staff ^a	20 MD and 10 paramedics	9 MD and 65 paramedics
Psychologists ^a	4	11
Social workers ^a	10	n.a
Volunteers ^a	About 100	46
Services/activities	Office for public health assistance, Library, Primary school, Sports and Drama activities (since 2006) Legal assistance helpdesk (2003) Vocational training/secondary school/University (since 2006) Job placement (since 2010) Office of civil registry/fiscal matters (since 2012) Handicraft (various years)	Primary school (from foundation) Library (since 1982) Office of civil registry/fiscal matters (since 2000) Informative point for legal matters (since 2005) Vocational training and Office for public health assistance (since 2008) Handicraft, Sports and Drama activities (n.a.)
Open-cell regime (8.00 a.m.–8.00 p.m)	Across-the-board and since prison's establishment	From January 2014 to May 14, according to the section; limited in Section VI, II Floor

^aAt the moment of the survey

Table 2 Individual and social features of the respondents, and their detention conditions

Facility	Bollate	San Vittore
Average age (years)	42.7	43.0
Males (%)	84.7	86.0
Italian citizenship (%)	67.7	38.3
Good/good enough language comprehension (Italian) (%)	95.5	84.1
Education (%)	None	None
Employed (%)	8.1 Unempl	5.0 Unempl
Religion (%)	Primary Occasional	Primary Occasional
Married (%)	54.4 19.8	49.7 23.0
Divorced/separated (%)	None	None
With children (5)	67.4	67.0
	Secondary	Secondary
	32.6 Regular	36.1 Regular
	48.7 Other	38.5 Other
	Muslim	Muslim
	14.0	13.0
	15.9	14.4
	Christian	Christian
	70.1	72.6
	32.0	39.2
	21.78	20.9
	Bachelor	Bachelor
	4.9 Other ^a	9.2 Other ^a
	9.6	8.7

Table 2 (continued)

Facility	Bollate	San Vittore
Arrested— waiting for the first instance judgment (%)	0	37.3
Defendants (wait- ing for II or III instance judgment) (%)	11.1	27.6
Convicted people (%)	88.9	35.1
Paying a personal lawyer (%)	63.3	59.6
Legal aid (%)	21.0	22.8
Court- appointed attorney (%)	7.0	13.4

Table 2 (continued)

Facility	Bollate	San Vittore
First time in prison (%)	53.6	49.7
Penalty duration: average (years)	13.2	8.0
Residual penalty: average (years)	8.0	6.9
Imprisonment regime (%)	Ordinary 87.9	Ordinary 88.5
	Work release or semi-custodial 8.2	Work release or semi-custodial 4.1
		Other 3.9
		Other 7.4

^aStudents and retired people

43517/09), all the Italian prisons have been requested to revise their internal organisation to allow all the inmates to move within their section without restrictions, at least for eight hours per day. However, the open-cell regime still remains largely unapplied, though re-launched in 2017 by Law No. 103/2017, partially reforming the penitentiary law. According to Burdese (2018), only 50% of the correctional facilities implemented open-cell regimes (95% in Lombardia, North Italy; 5% in Campania, South Italy). From this perspective, Bollate represents an exception, since the open-cell regime has been implemented in all prison sections since its foundation in 2000. Conversely, in San Vittore, at the time of the survey, the open-cell regime was introduced only in some sections at different dates starting from the beginning of 2014. Therefore, prisoners in the sample benefited from the open-cell regime for a diverse time range.

Concerning the similarities, both the correctional facilities offer various services and activities to the inmates; in particular, there is an office of civil registry and for fiscal matters, a helpdesk for legal assistance, and some network officers who can help inmates to manage issues involving external institutions (e.g. embassies for foreign inmates, etc.). The supply of these services is important since prisoners can find internal support to manage their legal needs, mainly in this form of assistance.¹³ Notably, prisoners who want to find support in these services have to reach the service-desks because, services are not provided cell by cell.

As summarised in Table 2, given the difference between prison (Bollate) and jail (San Vittore), data show that—as expected—Bollate’s population mostly includes Italian people (foreign inmates (32.3%); details by section are provided in Table 8), who are definitely convicted (88.9%), with medium-long penalties (average duration 13.2 years). However, San Vittore hosts a population where the incidence of foreign inmates who are still waiting for a first-instance judgement is substantial (foreigners are 61.7% of the population; 37.3% of the respondents are waiting for a first-instance judgement while 35.1% of the inmates are definitely convicted).

Information about employment before the imprisonment seems to be consistent with the previous features characterising the populations of the two correctional facilities: before being detained, respondents of San Vittore have been either unemployed or occasionally employed more than those of Bollate.

Concerning the number of women and the average age of the inmates, the two prisons have very similar populations. Respondents were also homogeneous in terms of their family situation: about one-third of the respondents were married, more than two-third had children, and about 20% were divorced/separated.

Although the number of foreigners is very different in the two prisons, responses are homogeneous for religion: about 70% are Christians, while 13–14% are Muslims. Generally, respondents from both Bollate and San Vittore understand Italian

¹³ On this point, we underline that in 2013/2014 the position of the prisoner as a subject with legal capability has been reinforced, thanks to the introduction of *judicial complaints* (art. 35 *bis*, according to the d.l. 146/2013) and *remedies* (art. 35 *ter*, according to the d.l. 92/2014) in the Law 54/1975 (Ordinamento Penitenziario). See also Della Bella, 2017.

Table 3 Non-criminal legal problems arisen before the imprisonment, and their resolution

Facility	Bollate	San Vittore
Respondents with pending legal problems at the moment of incarceration (%)	46.1	68.8
Predominant issues declared by those with pending problems that arose before the incarceration (%) ^a	Fines/admin. sanctions Others ^b	Fines/admin. sanctions Family law matters
		11.9 8.0
Predominant counterparty in legal problems (% of the respondents with problems that arose before the incarceration) ^a	Family law matters Others ^c	Tax/duties/contributions Public administration
		8.0 24.2
Respondents with problems that arose before the incarceration who solved them (%)	Public administration Spouse/partner	Spouse/partner Others ^c
		14.2 7.7
Respondents with problems that arose before the incarceration who gave up because they were imprisoned (%)	Spouse/partner 15.0	Others ^c 15.3
Who has been contacted for trying to resolve the issues (% of the respondents with problems that arose before the incarceration) ^d	10.9	13.3
	Personal criminal lawyer Other inmates Family	Personal criminal lawyer Family Other inmates
		15.9 6.8 5.9
		21.8 13.1 7.5

^aOnly the three most frequent categories are reported. Categories do not sum up to 100% since some respondents did not select any category suggested in the survey including “Others” (see the next note)

^bUnspecified problems other than Inheritance, Bankruptcy, Eviction—repossession, Tax/duties/contributions, Permit to stay, Labour contracts, Contract liability, Damages/Torts

^cUnspecified counterparties other than employers, suppliers and clients, and relatives who are not the spouse

^dOnly the three most frequent categories are reported. The questionnaire also reported the following choices: another lawyer, officers, rehabilitation staff, social workers, the priest, MD, network officers, volunteers, none

well or well enough; in both facilities, more than 90% of the respondents had at least primary education and more than one-third had at least higher education.

Although in both the facilities, just under 90% of the respondents are detained according to the ordinary regime, 8.2 and 4.1% of the respondents of Bollate and San Vittore, respectively, are under a work release or semi-custodial regime.

Table 3 shows evidence about civil/administrative legal problems that arose before the imprisonment and were still pending at the moment of the incarceration. In Bollate and San Vittore, 46.1% and 68.8% of the respondents, respectively, had pending legal problems when imprisoned. The most common problems concerned family law matters and issues with public administration (fines/administrative sanctions and tax/duties/contributions). This evidence is consistent with data regarding the counterparties in legal problems faced by them.

Table 4 shows evidence about civil/administrative legal problems that arose during the imprisonment and problems related to the release/renewal of ordinary documents.

Likewise, for problems that arose before the incarceration, respondents who said to have or have had non-criminal legal issues during the imprisonment are significantly more copious at San Vittore than at Bollate (74.9 vs. 52.7%). However, it is worth noticing that being imprisoned seems to lead to augmented non-criminal legal needs. In both the correctional facilities, the number of respondents who report legal problems that arose during the imprisonment increased by more than 6% compared to the respondents reporting problems before the imprisonment.

Concerning the types of problems, the most common ones are related to family law matters, but property law and administrative law issues including evictions, repossessions and loss of subsidies, and family support grants are reported as very frequent.

Only a few respondents declare that they have been able to resolve their problems. The two correctional facilities have similar rates of inmates who gave up trying to resolve their legal issues because they were imprisoned (about 11%). As already discussed, inmates mainly turn to their criminal lawyer and relatives to manage their legal issues; Bollate's inmates also declared that they ask their mates for help.

During the imprisonment, more than 60% of the respondents have experienced problems related to the release or renewal of ordinary documents (mainly driving license and identity card). It is worth noticing that services that are provided within the correctional facility seem to have some role in the resolution of the issues related to the release/renewal of documents. To resolve problems related to administrative documents, more than 25% of the respondents of Bollate turned to the prison staff and 12% of the respondents of San Vittore turned to volunteers who cooperated with the prison.

Table 5 summarises the evidence about problems related to access to health care, discrimination, and access to education. For the most part, except in the case of access to education, respondents did not experience severe problems. Nonetheless, a relevant number of respondents have (seldom or often) faced problems related to health, discrimination, and/or education. Most prisoners who have had problems did not legally proceed. The number of respondents who successfully proceeded was very limited.

Table 4 Non-criminal legal problems that arose during the imprisonment, and their resolution

Facility	Bollate	San Vittore
Respondents who had/ have legal problems that arose during the incarceration (%) ^a	52.7	74.9
Predominant issues declared by those with problems that arose during the incarceration (%) ^b	Others ^c Family law matters Eviction-repossession	Others ^c Family law matters Loss of subsidies/economic aid for the family
Respondents with problems that arose during the incarceration who solved them (%)	9.3	15.5
Respondents with problems that arose during the incarceration who gave up because they were imprisoned (%)	11.6	11.2
Who has been contacted for trying to resolve the issues (% of the respondents with problems that arose during the incarceration) ^d	Personal criminal lawyer Other inmates Family	Personal criminal lawyer Family None
Respondents who had/ have problems related to document release/ renewal during the imprisonment (%)	61.7	66.1

Table 4 (continued)

Facility	Bollate	San Vittore
Respondents with problems related to documents who solved them in less than 6 months (%)	16.0	7.9
Respondents with problems related to documents who solved them in more than 6 months or have not solved yet (%)	84.0	92.0
Who has been contacted for trying to resolve the issues (% of the respondents with problems related to document release/renewal) ^d	Family/friends Prison staff Personal criminal lawyer	Family/friends Personal criminal lawyer Volunteers
	26.7 25.5 22.7	39.5 36.5 12.0

^aThose respondents who have both pending problems before the incarceration and problems that arise during the incarceration are included both here and in the first line of Table 4

^bOnly the three most frequent categories are reported. Some respondents did not select any category suggested in the survey including ‘Others’ (see the next note). For this reason, all the categories together do not sum up to 100%

^cUnspecified problems other than Inheritance, Bankruptcy, Eviction—repossession, Tax/duties/contributions, Permit to stay, Labour contracts, Contract liability, Damages/Torts

^dThe three most frequent categories are reported. The questionnaire also reported the following choices: another lawyer, officers, rehabilitation staff, social workers, the priest, MD, network officers, volunteers, none. Some respondents did not select any category). For this reason, all the categories do not sum up to 100%

^eMainly identity card and driving license, then permit of stay

Table 5 Fundamental rights

	Bollate	San Vittore
Respondents who have had severe problems related to access to health care during the detention (%)	60.7	54.6
	17.9	23.3
	21.4	22.1
Did you legally proceed? (%)	72.1	54.4
	15.7	33.3
	12.2	12.3
Respondents who have suffered from injuries /violence during the detention (%)	81.4	79.0
	14.8	15.9
	3.8	5.1
Did you legally proceed? (%)	59.8	51.5
	24.1	25.8
	16.1	22.7
Respondents who have been discriminated against during the detention (%)	84.1	79.5
	11.4	11.6
	4.5	8.9
Did you legally proceed? (%)	61.5	54.2
	20.0	40.7
	18.5	5.1
Respondents who have been discriminated by the prison staff (%)	68.9	70.6
	22.3	18.3
	8.8	11.1
Did you legally proceed? (%)	78.5	52.8
	14.8	36.0
	6.7	11.2

Table 5 (continued)

	Bollate	San Vittore
Respondents who have had problems related to access to education during the detention (%)		
I am not interested in getting educated	30.0	25.4
No	19.6	30.9
Yes, but educational offer is not enough	11.9	18.9
Yes	38.5	24.8
No	63.0	61.4
Yes, but in vain	21.0	23.5
Yes, successfully	16.0	15.1
Did you legally proceed? (%)		

In this regard, data suggest a hypothesis that is further investigated in the next section. Specifically, we will examine whether the open-cell regime, by removing strict limitations to the possibility for inmates to move within their sections, has facilitated the inmates' legal problem resolution. The hypothesis is also related to the differences between Bollate and San Vittore. In particular, San Vittore started implementing the open-cell regime only partially and very recently, while in Bollate, its application started long time back and has been widespread (as shown in Table 1).

All these factors play a role in explaining a different capacity/attitude to manage the legal needs of prisoners in the two correctional facilities. For instance, statistics suggest that Bollate is more effective in supporting inmates for the release/renewal of documents. This might be explained by the fact that prisoners can move within the prison with less restriction than in San Vittore. Mobility might simply result in a more effective use of services by inmates.

3 Empirical analysis

This section investigates whether measures aimed at guaranteeing more freedom to the prisoners inside the facility can ease the solution of legal problems they had at the time of incarceration.

Ceteris paribus, prisoners who are confined in cell for the largest part of the day have reduced capabilities in managing their legal needs. On the one hand, they have reduced access to soft and hard legal information. On the other hand, they feel discouraged with respect to any proactive attitude. Furthermore, some categories of inmates are likely to be particularly exposed to difficulties in solving their legal problems. For instance, young and less educated individuals without previous experience of imprisonment may experience greater obstacles to problem solution. The same may hold for foreign inmates, because they either have poorer networks or suffer limited knowledge of customary and formal rules. Additionally, inmates who are in pre-trial detention live the extremely paradoxical situation of being excluded from many prison routines (since they are assumed to be innocent); moreover, for investigative purposes, they are subject to special rules often strongly limiting contacts with people outside.

A greater freedom of interaction such as that provided under the open-cell system is manifested not only through increasing contacts with and access to recreational and cultural areas inside the prison, but also through easier access to assistance facilities such as the legal help desk. Allowing inmates to access these internal infrastructures may help them address legal needs, and generate positive externalities among prisoners. Indeed, the discussion of common problems and strategies adopted to solve them could further facilitate their solution. Finally, motivational effects related to a greater sense of empowerment could also contribute to speeding up the solution process.

To identify the effects of reduced confinement on problem resolution capability, we focus on the introduction of the open-cell regime. We rely on the exogeneity of this event with respect to the type of problems faced by the inmates before entering

prison/jail. The exogeneity assumption is based on the fact that both the problem that existed at the time of entry into prison and the cause that generated it occurred at a time preceding the entry, and can be considered independent of the introduction of the open-cell regime.

In particular, the identification of the open-cell regime's effects is supported by specific institutional limitations. First, an inmate cannot substantially interfere with the rules and procedures governing their placement in a given section of the prison. Generally, a prisoner is assigned to a section because of their gender and age irrespective of the committed crime, with the exception of prisoners under protection. Second, assignments are very often determined by problems of section-capacity: even if an assignment is not completely random, it is weakly related to the type of offence. Thus, finally, we can exclude the possibility that a prisoner can significantly and systematically control where they will be assigned.

The same can be said, even to a lesser extent, about facility selection. Bollate is a prison hosting prisoners for prolonged periods of time, while San Vittore is a jail. Hence, being associated with one or the other facility much depends on judicial aspects, and for the inmates not being in pre-trial detention, upon the capacity and availability of places in each facility. We will account for any possible exception to these general principles, introducing appropriate jail and section fixed effects in the regression analysis.

Furthermore, it is important to recall that prisoners in the sample benefited from the open-cell regime for a diverse time range (but still independently from each type of crime committed by the individual inmate), as the regime has been introduced at the section-level at different dates. If, on the one hand, this heterogeneity may be important for identification purposes, on the other hand, it may involve complications in defining the variable aimed at capturing the introduction of open cells. We opted to use a continuous permanence variable under the open-cell regime, instead of a pre-post dummy. An advantage of choosing the continuous variable is that it allows a finer measurement of the extent of the open-cell benefits, because the longer the period of freedom, the more the time available to solve problems.

3.1 Data and methodology

We use a database drawn from the survey illustrated in the previous section. In particular, we are concerned about pending legal problems that prisoners had at the time of their entry into prison.¹⁴ All observations included in the database refer to prisoners who claimed to have had at least one problem, whereas we discarded all those who declared to have no problems at the moment of their incarceration.¹⁵ After removing another few observations that presented more than 50% of missing

¹⁴ In the regression analysis, we do not consider the problems that arose during incarceration because this may raise additional independence issues between personal traits of the inmate (possibly correlated to the problem) and internal provisions taken by the prison administration, including confinement.

¹⁵ We also excluded prisoners under confinement from the regressions, without obtaining substantial differences in the estimates.

Table 6 Summary statistics and variable description

Variable Description	Mean	SD	Min	Max
Dummy = 1 if prisoner declares they have solved (or is dealing with) problems which were pending at the time of incarceration	0.700	0.459	0	1
Dummy = 1 if Bollate	0.548	0.498	0	1
Nr. days open-cell regime	396	568	0	4680
Prisoner waiting for first-instance trial	0.156	0.363	0	1
First time in jail	0.413	0.493	0	1
Length of staying in prison	449	565	0	4680
Prisoner was working at the time of incarceration	0.686	0.464	0	1
Tertiary education or bachelor	0.422	0.494	0	1
Prisoner is between 18 and 24 years old	0.056	0.231	0	1
Prisoner is between 25 and 34 years old	0.192	0.394	0	1
Prisoner is between 35 and 44 years old	0.293	0.456	0	1
Prisoner is married	0.325	0.469	0	1
Prisoner has children less than 18 years old	0.395	0.489	0	1
Prisoner is Italian	0.657	0.475	0	1
Prisoner speaks good Italian	0.655	0.476	0	1
Prisoner owns a house	0.246	0.431	0	1
Prisoner can work outside prison	0.090	0.287	0	1
Prisoner has their own lawyer	0.598	0.491	0	1
Prisoner is under legal patronage	0.253	0.435	0	1
Prisoner has a public defendant	0.095	0.293	0	1
Obs. 443				

answers among the covariates, a total of 443 observations were used. Summary statistics and descriptions of personal characteristics of the inmates and the problems faced by them are reported in Table 6.

We estimate how the introduction of the open-cell regime allowed a more efficient solution to the inmates' legal problems. Most relevantly, to inflect the effects of the introduction of the open-cell regime with respect to each specific type of problem (or related counterpart), we introduce interaction terms between the length of detention under the open-cell regime and the nature of each problem or counterpart.

We define y_{ij} as a binary variable taking the value 1 if the inmate i facing at least one (type j) problem was able to solve (or the inmate is some way dealing with) it, whereas y_{ij} is zero if the prisoner did not solve the problem or had ceased to deal with it.

We specify our model as follows:

$$y_{ij} = \beta_0 + \beta_1 x_{1i} + \beta_2 x_{2j} + \beta_3 x_{1i} * x_{2j} + \beta_4 x_{3i} + \mu_{dep} + \mu_{int} + \mu_{sect} + \varepsilon_{ij} \quad (1)$$

where x_{1i} is an individual-based predictor of the likelihood of solving problems (namely, the length of the open-cell regime, different for each inmate according to

both the time of entrance in prison and the introduction of the open-cell system in each section of their facilities), \mathbf{x}_{2j} is a vector of binary variables reflecting the type of problem (or counterpart) faced (common to groups of inmates), while other individual characteristics of the inmate are captured by the covariates (\mathbf{x}_{3j}). In particular, besides standard personal characteristics such as age, gender, and education, we have selected as covariates those features that can make legal problem resolution particularly tough, such as waiting for a first-instance judgement, being a foreigner, owning a house, or having children (see Table 6).¹⁶ Besides covariates, we have added section and survey interviewer's fixed effects (μ_{sect} and μ_{int} , respectively). We have also included a dummy if the inmates are hosted in Bollate (μ_{jaitl}).

The betas are parameters (vectors of parameters if bold letters) to be estimated. We focus particularly on (i) β_1 , which is a general effect of open cells on problem solution; (ii) β_2 , measuring the frequency of each specific problem for the overall population of inmates; (iii) β_3 , which is the interaction term between the length of the open-cell regime and each type of problem/counterpart, measuring the effect of the open-cell regime on the likelihood of solving each specific type of problem. Given that we chose 'other problems' as the baseline category within the problem taxonomy illustrated in the previous section, β_2 and β_3 , respectively, capture the frequency gap in terms of likelihood of solution of each type of problem as a consequence of the open-cell event, compared to the more general category of other problems.

Finally, ε_{ij} is a zero-mean random error term. Standard errors are clustered at the problem level. Clustering is motivated by the fact that, due to common unobserved effects, the willingness and ability to solve or take care of legal needs may in part be common to prisoners facing the same needs.

3.2 Results

Estimates are performed using a logit model. Results of the empirical analysis are reported in Table 7. The dependent variable (*years open*) refers to the duration of the open-cell system which the prisoner has benefited from (measured in years). Columns differ according to the set of explanatory variables, one set is represented by the inmates' counterpart (columns 1–5), while the other set refers to the nature of the problem faced by the inmates (columns 6–10). Marginal effects have been reported. A backward-stepwise estimation procedure was used to select the variables that are statistically more significant in affecting the likelihood of problem solution,

¹⁶ As already explained above, the fact of being waiting for a first-instance judgment, actually deprives a prisoner of many opportunities to participate to the 'regular routine' and benefit from services and opportunities provided by the correctional facility. Foreigners suffer for additional obstacles including knowledge and language deficiencies and the lack of any (family) network outside the prison. Finally, when there are children, families and prisoners are in a position requiring constant negotiation of competing interests. See Hagan and Dinovitzer (1999), Christian et al. (2006), Grunseit et al. (2008).

Table 7 Effects of the open-cell regime on the probability that prisoners solve or take care of their legal problems. Logit regressions—Backward stepwise estimation with admission threshold of the variables at 10% significance level

Dependent variable:	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates and section fixed effects	With covariates, interviewer fixed effects and section fixed effects	With covariates and section fixed effects	With covariates, interviewer fixed effects and section fixed effects			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Variables										
Years open (β_1)	-0.001 (0.005)	0.003 (0.006)	0.014** (0.007)	0.005 (0.006)	0.015** (0.007)	-0.008 (0.011)	0.007 (0.007)	0.004 (0.010)	0.007 (0.009)	0.004 (0.011)
First time in jail (β_4)		-0.067*** (0.021)	-0.063*** (0.020)	-0.060*** (0.020)	-0.061*** (0.019)		-0.115*** (0.014)	-0.094*** (0.014)	-0.106*** (0.010)	-0.097*** (0.016)
Own lawyer (β_4)							0.047** (0.020)	0.047*** (0.018)	0.047*** (0.015)	0.044*** (0.015)
Age_25_34 (β_4)		-0.099** (0.040)	-0.088** (0.039)	-0.099** (0.040)	-0.086** (0.035)		-0.114** (0.054)	0.040 (0.059**)	0.072** (0.029)	0.038 (0.029)
Italian native/good Italian (β_4)										
House ownership (β_4)										
										0.037 (0.023)

Table 7 (continued)

Dependent variable:	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates and section fixed effects	With covariates, interviewer fixed effects and section fixed effects	With covariates and section fixed effects	With covariates, interviewer fixed effects and section fixed effects
<i>years open</i> (duration of the open-cell system measured in years)							
Spouse (counterpart) β_2	0.387*** (0.083)	0.376*** (0.085)	0.384*** (0.080)	0.375*** (0.083)	0.380*** (0.065)		
Relative (counterpart) $_2$	0.272** (0.114)	0.269** (0.108)	0.271** (0.106)	0.270** (0.113)	0.276** (0.108)		
Public administration (counterpart) $_2$	0.294*** (0.068)	0.285*** (0.070)	0.283*** (0.067)	0.277*** (0.070)	0.289*** (0.068)		
Years open* Public administration β_2	0.032* (0.019)	0.030* (0.017)	0.031* (0.017)	0.028 (0.017)	0.030* (0.017)		
Divorce and children (type prob.) β_2				0.339***		0.331***	0.316***
						0.333***	0.316***

Table 7 (continued)

Dependent variable: <i>years open</i> (duration of the open-cell system measured in years)	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates, interviewer fixed effects and section fixed effects	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates and section fixed effects	With covariates, interviewer fixed effects and section fixed effects
Legacy (type prob.) β_2	(0.107)	(0.117)	0.358*** (0.119)	0.358*** (0.118)	0.446***	0.358*** (0.117)	0.358*** (0.119)	0.338*** (0.104)	0.349*** (0.118)
Contractual liability (type prob.) β_2									
Bankruptcy (type prob.) β_2									
Residence (type prob.) β_2									
Years open* divorce and children β_3									

Table 7 (continued)

Dependent variable: <i>years open</i> (duration of the open-cell system measured in years)	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates, interviewer fixed effects and section fixed effects	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates and section fixed effects	With covariates, interviewer fixed effects and section fixed effects
Years open* legacy β_3					-0.171***	-0.176***	-0.164***	-0.172***	
					(0.050)	(0.064)	(0.073)	(0.062)	
Years open* house β_3					0.184***	0.180***	0.180***	0.194***	0.194***
					(0.062)	(0.044)	(0.057)	(0.045)	(0.058)
Years open* contractual liability β_3					-0.246***			-0.248***	
					(0.082)			(0.072)	
Interviewer fixed effects (μ_{int})	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Section fixed effects (μ_{sect})	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-0.885 (0.831)	-0.868 (0.744)	-0.828 (0.735)	-0.827 (0.735)	-0.721 (0.811)	-0.852 (0.678)	-0.739 (0.681)	-0.984 (0.748)	-0.739 (0.681)
Pseudo R2	0.16	0.17	0.17	0.17	0.09	0.13	0.10	0.11	0.10
Observations	443	443	443	443	443	443	443	443	443

Table 7 (continued)

Logit estimates. Marginal effects (at the mean) are reported. Standard errors clustered at the problem level in parentheses

Variables retention level refers to parameters (not to marginal effects). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Columns differ according to the set of explanatory variables: inmates' counterpart in columns 1–5, nature of the problem faced by the inmates in columns 6–10

Variables discarded by (backward) stepwise procedure: *Length of stay in prison, Jail (San Vittore), Waiting for first-instance trial, Working at time of incarceration, Can work outside prison, Tertiary education or bachelor, Under legal patronage, Public defendant, Age_18_24, Age_35_44, Married, Children less than 18 years, employer (counterpart), supplier or customer (counterpart) years open* spouse, years open* relative, years open* employer, years open* supplier or customer, house (type prob.), seizure (type prob.), tax (type prob.), fines (type prob.), job (type prob.), civil liability (type prob.), years open* seizure, years open* bankruptcy, years open* fines, years open* tax, years open* residence, years open* job, years open* civil liability.* The variable *years open* has been purposefully locked

with a significance threshold for variable retention in the stepwise procedure set at 10% level.¹⁷

According to the inmate's counterpart, estimates show that the most frequent problems occur with spouses (*spouse*), relatives (*relative*), and the public administration (*public administration*) (all through columns 1–5). Likewise, looking at the nature of the problem, the most relevant issues occur with respect to divorce and child custody (*divorce and children*, all through columns 6–10), inheritance (*legacy*, columns 7–10), citizenship (*residence*, columns 7 and 9), contract liability (*contract liability*, columns 6 and 9), and bankruptcy (*bankruptcy*, column 7).

From the interaction terms between the length of the open-cell system and the counterpart, it emerges that only those problems with the public administration are likely to be more efficiently solved since the introduction of the open-cell regime (*years open*public administration*, all through columns 1–5). Surprisingly, family-related problems are not solved efficiently, as the stepwise procedure drops the associated interaction term (*years open* spouse*) from the set of significant regressors in columns 1–5.

Nevertheless, further elements emerge from the specific nature of the problem. In columns 6–10, there is substantial heterogeneity in the intensity with which the open-cell regime has facilitated the problem solution. First, open cells have a significant positive effect on the solution of problems related to divorce and child custody (*years open*divorce and children*, all through columns 6–10). Conversely, the negative sign associated with inheritance issues (*years open*legacy*, columns 7–10) seems to indicate the presence of considerable difficulties in managing issues related to inheritance, compared to the baseline category. This could also explain the lack of significance of the parameters relating to the solution of problems with spouse and relatives in the regressions concerning the counterparties (see above), as easier problem solutions of divorce and child custody are compensated by difficulties in addressing those related to inheritance. Similarly, housing problems seem more easily solved owing to the new regime (*years open* house*, all through columns 6–10), whereas those involving contract liability face greater obstacles (*years open* contract liability*, columns 6 and 9).

In general (*years open*), the open-cell regime has weak significant effects on problem solution. This is perhaps due to the fact that the problem-specific regressors tend to absorb all the significant effects of open cells. Similarly, the inclusion of section fixed effects, even if not significant, may somehow be responsible for the lack of significance of the dummy identifying the type of facility (μ_{jail}). Interviewer's

¹⁷ Robustness check is conducted, both using different significance thresholds and including all covariates (Tables 2a and 3a in the Appendix). In particular, the full set of covariates included the length of the overall stay in prison for each inmate. The rationale for its inclusion is that the length of stay under the open-cell regime could be correlated with the overall time that an inmate spent in prison, thus potentially introducing confounding factors in identifying the effect of the open-cell regime and its interaction with each type of problem/counterpart. Although the stepwise procedure discards this variable as being not significant above 10% level (therefore not reported in Table 7), it is included in Table 3a in Appendix. Besides being not significant, the variable *Length of stay in prison* does not substantially affect the main outcome.

fixed effects are sometimes significant whereas section fixed effects are not.¹⁸ This supports our assumption regarding the exogenous assignment of inmates to sections.

Other interesting insights come from the covariates. First, relatively young inmates between the ages of 25 and 34 tend to suffer from greater difficulties in addressing legal problems, perhaps because of the higher frequency of dealing with divorce and child custody matters (*age_25_34*). This also holds for prisoners who have not had previous experience of detention (*First time in jail*), which is likely to support the fact that a long detention tends to increase the chances of learning how to solve problems. Wealthier conditions, by owning a house (*House ownership*) or having a lawyer (*Own lawyer*), as opposed to receiving legal patronage or obtaining a public defender, provide more opportunities to solve previous legal problems. Finally, as expected, there is significant evidence that knowing the Italian language (*Italian native / speaks good Italian*) facilitates problem resolution.

4 Conclusions

Evidence from the survey carried out in the correctional facilities of Bollate and San Vittore shows that most prisoners had pending non-criminal legal problems at the moment of imprisonment. Moreover, imprisonment results in an augmented number of inmates who face legal issues which are not directly related to their criminal story.

Inmates' legal issues mainly concern family law matters, contract liability, and administrative procedures. Often, the legal needs of prisoners involve ordinary activities such as citizenship and the release or renewal of standard documents. Imprisonment in itself represents a recurrent cause to face difficulties in solving legal problems and/or in giving up trying to solve them. Rarely, inmates find institutional support to their legal needs within the correctional facility. Prisoners turn to relatives and their criminal lawyers to manage pending issues: it is plausible that people who cannot count on their family network and/or on a personal lawyer suffer from a reduced capability to manage their legal problems.

Prison services to support inmates' legal needs seem to be significantly used only for document release and renewal. Although both the facilities provide offices of civil registry and fiscal matters and legal assistance help-desks, it is unquestionable that access to these services is closely related to the freedom of access to the internal structures of the correctional facility. We tested this hypothesis by exploiting the regime change (introduction of the open-cell system) which occurred at different dates in each of the two facilities. Assuming that (and motivating why) the introduction of this new regime was exogenous with respect to the reasons for which

¹⁸ Full estimation output available upon request.

the prisoner was imprisoned, we estimated the effect of the increase in freedom of movement and use of facilities within the prison on the ability to resolve previous legal problems compared to the time of imprisonment.

The empirical analysis provides evidence in favour of the fact that the open-cell regime has increased the rate of resolution of (or willingness to solve) civil and administrative problems, especially those related to family issues. We infer that issues requiring more ‘standardised’ solution procedures, like divorce, child custody, and problems with the public administration, can be more easily addressed through better access to the help-desk services, while inmates face more difficulties to address more complicated and ‘individual-based’ matters (i.e. legacy) and business-related problems (i.e. contract liability). There are no clear-cut results related to the fact of having the status of a prisoner waiting for the first-instance trial. Finally, the regression outcome also supports the idea that foreign inmates and relatively younger and less wealthy inmates have a smaller rate of problem resolution.

As a general policy issue, the empirical results of this study support the idea that the open-cell regime might be a good practice to help prisoners maintain their legal capability while reducing their exposure to further legal problems that can exacerbate (future) social exclusion and difficulties in their reintegration among free citizens.

Finally, notice that the empirical model used to provide this evidence represents a way to interpret the data from the survey, while providing some robust correlations. This has been done in a very straightforward form, using logit estimates with fixed effects and interacting terms. However, we recognize that defining such relationships causally is outside the scope of our article and may be an interesting element for future research.

Appendix

See Tables [8](#), [9](#), [10](#)

Table 8 Bollate and San Vittore: Organisation of the Sections, Foreigners, and Women

Bollate		San Vittore					
Section name	Section type ^a	Num. of inmates ^b	Ratio of foreigners ^b	Section name	Section type ^a	Num. of inmates ^b	Ratio of foreigners ^b
I	Over 50	156	29.5%	Criminal	Young men	89	84.3%
II	Addicted people	182	25.3%	II	Not working	n.a	n.a
III	30–50 years old	148	39.9%	III	Addicted people	219	45.7%
IV	Young men/Students	100	32.0%	IV	Not working	n.a	n.a
V	Work-release/semi-custodial	137	25.5%	V	Men	260	67.3%
Female	Women	91	44.0%	VI 1st floor	Men sex offenders	180	72.8%
				VI 2nd floor		64	56.3%
VII	Sex offenders	338	33.8%	VII	Hospitalised people	92	34.8%
				Female	Women	84	72.6%
	Total,	1152	32.3%		Total	988	61.7%
	Ratio of women	15.3%			Ratio of women	14.0%	

^aMale section, unless otherwise specified^bDuring the survey

Table 9 Effects of the open-cell regime on the probability that prisoners solve or take care of their legal problems. Logit regressions—Backward stepwise estimation with admission threshold of the variables at 15% significance level

Dependent variable:	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates and interviewer fixed effects and section fixed effects	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates and interviewer fixed effects and section fixed effects		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Years open (duration of the open-cell system measured in years)	-0.003 (0.006)	0.007 (0.007)	0.015** (0.008)	0.007 (0.006)	0.015** (0.007)	-0.013 (0.005)	0.007 (0.007)	0.004 (0.009)	0.011 (0.006)	0.004 (0.010)
First time in jail		-0.061*** (0.021)	-0.058*** (0.021)	-0.058*** (0.020)	-0.059*** (0.022)		-0.115*** (0.014)	-0.095*** (0.015)	-0.101*** (0.009)	-0.098*** (0.015)
Own lawyer				0.035 (0.028)			0.047** (0.020)	0.033** (0.014)		0.033** (0.014)
Age_18_24		-0.086** (0.040)	-0.083* (0.044)	-0.085** (0.041)	-0.078* (0.041)					
Age_25_34		-0.102** (0.041)	-0.097** (0.039)	-0.105* (0.040)	-0.095** (0.037)		-0.114** (0.054)			
Italian native/ speaks good Italian							0.059**	0.063**	0.072**	0.063**
Children less than 18 years		-0.040 (0.028)		-0.043 (0.029)			(0.029)	(0.029)	(0.031)	(0.028)

Table 9 (continued)

Dependent variable: years open the open- cell system measured in years)	Without covariates	With covari- ates	With covari- ates and interviewer fixed effects	With covari- ates and inter- viewer fixed effects and section fixed effects	With covari- ates	With covari- ates and interviewer fixed effects	With covari- ates and section fixed effects	With covari- ates, inter- viewer fixed effects and section fixed effects
House own- ership						0.035***	0.036	0.036***
Spouse (counter- part)	0.389*** (0.081)	0.382*** (0.085)	0.381*** (0.079)	0.384*** (0.084)	0.381*** (0.080)	0.381*** (0.079)	0.384*** (0.084)	0.381*** (0.080)
Relative (counter- part)	0.259** (0.109)	0.248** (0.103)	0.268** (0.108)	0.262** (0.115)	0.266** (0.107)	0.268** (0.108)	0.262** (0.115)	0.266** (0.107)
Public administra- tion (coun- terpart)	0.292*** (0.067)	0.284*** (0.069)	0.281*** (0.069)	0.278*** (0.070)	0.286*** (0.071)	0.281*** (0.069)	0.278*** (0.070)	0.286*** (0.071)
Years open* public administra- tion	0.035* (0.019)	0.030* (0.018)	0.032* (0.017)	0.027 (0.017)	0.032* (0.016)	0.032* (0.017)	0.027 (0.017)	0.032* (0.016)

Table 9 (continued)

Dependent variable:	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates and section fixed effects	With covariates and interviewer fixed effects and section fixed effects	With covariates and section fixed effects	With covariates and interviewer fixed effects and section fixed effects
Years open* (duration of the open-cell system measured in years)							
Years open* supplier or customer	0.133** (0.064)	0.119* (0.063)					
Divorce and children (type prob.)			0.308** (0.122)	0.331*** (0.117)	0.307*** (0.118)	0.325*** (0.102)	0.304*** (0.117)
Legacy (type prob.)			0.276*** (0.049)	0.358*** (0.092)	0.337*** (0.069)	0.331*** (0.084)	0.332*** (0.061)
Bankruptcy (type prob.)				0.367*** (0.118)	0.308*** (0.117)		0.308*** (0.117)
Tax (type prob.)			0.306* (0.176)				
Fines (type prob.)			0.259*** (0.094)				

Table 9 (continued)

Dependent variable: years open the open- cell system measured in years)	Without covariates	With covari- ates	With covari- ates and interviewer fixed effects	With covari- ates and interviewer fixed effects and section fixed effects	Without covariates	With covari- ates	With covari- ates and interviewer fixed effects	With covari- ates and section fixed effects	With covari- ates, inter- viewer fixed effects and section fixed effects
Residence (type prob.)		0.278***	0.304***	0.350***	0.278***	0.360***	0.304***	0.350***	0.304***
Contractual liability (type prob.)		(0.091)	(0.112)	(0.115)	(0.091)	(0.117)	(0.112)	(0.115)	(0.110)
Civil liability (type prob.)		0.337***		0.412***	0.337***			0.412***	
Years open* divorce and children		(0.042)	0.320***	(0.077)	(0.042)		0.320***	(0.077)	0.318***
Years open* legacy		0.264***	(0.116)	(0.133)	0.264***		(0.116)	(0.133)	(0.113)
Years open* house		0.049*	0.047***	0.044***	0.049*	0.038*	0.047***	0.044***	0.044***
		(0.029)	(0.018)	(0.017)	(0.029)	(0.019)	(0.018)	(0.017)	(0.016)
		-0.120**	-0.169***	-0.159***	-0.120**	-0.171***	-0.169***	-0.159***	-0.169***
		(0.054)	(0.059)	(0.072)	(0.054)	(0.050)	(0.059)	(0.072)	(0.058)
		0.169***	0.181***	0.185***	0.169***	0.180***	0.181***	0.185***	0.181***
		(0.026)	(0.040)	(0.036)	(0.026)	(0.044)	(0.040)	(0.036)	(0.041)

Table 9 (continued)

Dependent variable:	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates and section fixed effects	With covariates, interviewer fixed effects and section fixed effects	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates and section fixed effects	With covariates, interviewer fixed effects and section fixed effects
Years open* bankruptcy						0.179***		0.039***	0.216***	0.041***
Years open* tax						(0.038)		(0.018)	(0.074)	(0.019)
Years open* contractual liability						0.166**			-0.337**	
						(0.069)			(0.148)	
						-0.260**				
Interviewer fixed effects (μ_{int})	Yes	Yes	Yes	Yes	Yes	(0.125)	Yes	Yes	Yes	Yes
Section fixed effects (μ_{sect})	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-1.198 (0.833)	-0.763 (0.737)	-0.778 (0.717)	-0.920 (0.738)	-0.778 (0.717)	-1.202 (0.884)	-0.852 (0.678)	-1.332* (0.709)	-1.060 (0.754)	-1.332* (0.709)
Pseudo R2	0.16	0.17	0.17	0.17	0.17	0.18	0.13	0.15	0.13	0.15
Observations	443	443	443	443	443	443	443	443	443	443

Table 9 (continued)

Logit estimates. Marginal effects (at the mean) are reported. Standard errors clustered at the problem level in parentheses

Variables retention level refers to parameters (not to marginal effects). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Columns differ according to the set of explanatory variables: inmates' counterpart in columns 1–5, nature of the problem faced by the inmates in columns 6–10

Variables discarded by (backward) stepwise procedure: *Length of stay in prison, Jail (San Vittore), Waiting for first-instance trial, Working at time of incarceration, Can work outside prison, Tertiary education or bachelor, Under legal patronage, Public defendant, Age_35_44, Married, employer (counterpart), supplier or customer (counterpart) years open * spouse, years open * relative, years open * employer, house (type prob.), seizure (type prob.), job (type prob.), years open * seizure, years open * fines, years open * residence, years open * job, years open * civil liability*. The variable *years open* has been purposefully locked

Table 10 Effects of the open-cell regime on the probability that prisoners solve or take care of their legal problems. Logit regressions with complete set of explanatory variables and covariates

Dependent variable: <i>years open</i> (duration of the open-cell system measured in years)	(1) Without covariates	(2) With covariates	(3) With covariates and interviewer fixed effects	(4) With covariates and section fixed effects	(5) With covariates, interviewer fixed effects and section fixed effects	(6) Without covariates	(7) With covariates	(8) With covariates and interviewer fixed effects	(9) With covariates and section fixed effects	(10) With covariates, interviewer fixed effects and section fixed effects
Variables										
Years open	-0.012 (0.044)	0.020 (0.041)	0.020 (0.075)	-0.016 (0.062)	0.020 (0.075)	-0.014 (0.048)	0.017 (0.039)	0.005 (0.016)	-0.018 (0.016)	0.005 (0.016)
Length of stay in prison		-0.038 (0.040)	-0.004 (0.074)	-0.038 (0.061)	-0.005 (0.074)		-0.032 (0.034)	-0.015 (0.017)	-0.036 (0.023)	-0.016 (0.017)
H_{jail} (Bollate)		0.0005 (0.053)					0.027 (0.093)			
Waiting for first-instance trial		0.015	0.017	0.005	0.017		0.020	0.043	0.021	0.043
First time in jail		(0.058)	(0.062)	(0.067)	(0.062)		(0.056)	(0.058)	(0.060)	(0.057)
Working at time of incarceration		-0.0888*** (0.029)	-0.075*** (0.027)	-0.083*** (0.023)	-0.075*** (0.027)		-0.086*** (0.020)	-0.069*** (0.020)	-0.076*** (0.018)	-0.067*** (0.019)
Can work outside prison		0.012	0.018	0.019	0.019		0.0046	0.015	0.012	0.016
		(0.034)	(0.039)	(0.038)	(0.040)		(0.032)	(0.041)	(0.040)	(0.043)
		0.067	-0.041	0.028	-0.038		0.036	-0.068	-0.006	-0.062
		(0.071)	(0.123)	(0.068)	(0.121)		(0.107)	(0.131)	(0.090)	(0.125)

Table 10 (continued)

Dependent variable: <i>years open</i> (duration of the open-cell system measured in years)	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates and section fixed effects	With covariates, interviewer fixed effects and section fixed effects	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates and section fixed effects	With covariates, interviewer fixed effects and section fixed effects
Tertiary education or bachelor	0.008 (0.029)	0.014 (0.027)	0.017 (0.028)	0.013 (0.028)	0.013 (0.028)	-0.022 (0.037)	-0.012 (0.046)	-0.012 (0.046)	-0.014 (0.041)	-0.012 (0.046)
Own lawyer	0.010 (0.053)	0.010 (0.055)	0.019 (0.054)	0.010 (0.055)	0.010 (0.055)	0.022 (0.058)	0.025 (0.075)	0.025 (0.075)	0.025 (0.068)	0.023 (0.074)
Under legal patronage	-0.034 (0.063)	-0.032 (0.064)	-0.025 (0.064)	-0.031 (0.064)	-0.031 (0.064)	-0.016 (0.066)	-0.017 (0.073)	-0.017 (0.073)	-0.015 (0.070)	-0.018 (0.073)
Public defendant	-0.031 (0.076)	-0.026 (0.077)	-0.025 (0.077)	-0.025 (0.078)	-0.025 (0.078)	0.003 (0.087)	0.018 (0.090)	0.018 (0.090)	0.013 (0.071)	0.019 (0.089)
Age_18_24	-0.107** (0.053)	-0.061 (0.101)	-0.089 (0.073)	-0.064 (0.101)	-0.064 (0.101)	-0.110*** (0.041)	-0.048 (0.060)	-0.048 (0.060)	-0.096 (0.091)	-0.054 (0.057)
Age_25_34	-0.129** (0.064)	-0.109 (0.070)	-0.111 (0.075)	-0.110 (0.070)	-0.110 (0.070)	-0.126* (0.075)	-0.104 (0.074)	-0.104 (0.074)	-0.113 (0.078)	-0.108 (0.072)
Age_35_44	-0.010 (0.045)	-0.006 (0.044)	-0.002 (0.044)	-0.007 (0.045)	-0.007 (0.045)	-0.010 (0.026)	-0.009 (0.028)	-0.009 (0.028)	-0.007 (0.028)	-0.010 (0.027)
Italian native/ speaks good Italian	0.032 (0.049)	0.033 (0.052)	0.028 (0.050)	0.032 (0.052)	0.032 (0.052)	0.040 (0.034)	0.036 (0.033)	0.036 (0.033)	0.032 (0.032)	0.035 (0.033)

Table 10 (continued)

Dependent variable: years open (duration of the open-cell system measured in years)	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates and section fixed effects	With covariates, interviewer fixed effects and section fixed effects	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates and section fixed effects	With covariates, interviewer fixed effects and section fixed effects
Married		-0.03 (0.040)	-0.031 (0.043)	-0.029 (0.043)	-0.032 (0.044)		-0.035 (0.037)	-0.043 (0.033)	-0.041 (0.031)	-0.046 (0.033)
Children less than 18 years		-0.045	-0.033	-0.044	-0.032		-0.027	-0.014	-0.025	-0.011
House ownership		(0.036) 0.014	(0.033) 0.021	(0.035) 0.019	(0.033) 0.021		(0.025) 0.034	(0.020) 0.045*	(0.019) 0.047*	(0.019) 0.045*
Spouse (counterpart)	0.381* (0.201)	(0.047) 0.394*	(0.046) 0.397*	(0.046) 0.411**	(0.046) 0.398*		(0.024)	(0.024)	(0.024)	(0.025)
Relative (counterpart)	0.304 (0.186)	0.289 (0.181)	0.291 (0.180)	0.280 (0.182)	0.291 (0.180)		0.209	0.291	0.291	0.209
Employer (counterpart)	0.100 (0.133)	0.109 (0.119)	0.134 (0.120)	0.123 (0.121)	0.136 (0.117)		0.136	0.123	0.123	0.136
Public administration (counterpart)	0.348** (0.136)	0.343** (0.140)	0.318** (0.144)	0.334** (0.147)	0.318** (0.143)		0.318**	0.334**	0.318**	0.318**

Table 10 (continued)

Dependent variable: <i>years open</i> (duration of the open-cell system measured in years)	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates and section fixed effects	With covariates, interviewer fixed effects and section fixed effects	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates and section fixed effects	With covariates, interviewer fixed effects and section fixed effects
Supplier or customer (counterpart)	0.152 (0.150)	0.111 (0.145)	0.051 (0.152)	0.098 (0.154)	0.051 (0.152)					
Years open* spouse	0.078 (0.056)	0.072 (0.055)	0.080 (0.058)	0.067 (0.053)	0.079 (0.058)					
Years open* relative	0.020 (0.059)	0.029 (0.050)	0.028 (0.050)	0.023 (0.052)	0.028 (0.050)					
Years open* employer	0.065 (0.083)	0.067 (0.076)	0.067 (0.077)	0.062 (0.080)	0.061 (0.079)					
Years open* public administration	0.054*** (0.023)	0.045* (0.023)	0.062*** (0.028)	0.049* (0.025)	0.061*** (0.027)					
Years open* supplier or customer	0.099 (0.069)	0.103 (0.071)	0.120 (0.075)	0.108 (0.074)	0.123 (0.076)					

Table 10 (continued)

Dependent variable: <i>years open</i> (duration of the open-cell system measured in years)	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates, interviewer fixed effects and section fixed effects	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates and section fixed effects	With covariates, interviewer fixed effects and section fixed effects
divorce and children (type prob.)	0.388*	0.381	0.378	0.389	0.388*	0.381	0.378	0.389	0.378
Legacy (type prob.)	(0.229)	(0.244)	(0.254)	(0.249)	(0.229)	(0.244)	(0.254)	(0.249)	(0.254)
House (type prob.)	0.342**	0.374***	0.433***	0.410***	0.342**	0.374***	0.433***	0.410***	0.433***
Seizure (type prob.)	(0.137)	(0.131)	(0.123)	(0.133)	(0.137)	(0.131)	(0.123)	(0.133)	(0.122)
Bankruptcy (type prob.)	0.062	0.047	0.050	0.061	0.062	0.047	0.050	0.061	0.055
Tax (type prob.)	(0.087)	(0.085)	(0.077)	(0.080)	(0.087)	(0.085)	(0.077)	(0.080)	(0.074)
Fines (type prob.)	0.062	0.021	0.007	-0.007	0.062	0.021	0.007	-0.007	0.009
	(0.103)	(0.088)	(0.073)	(0.067)	(0.103)	(0.088)	(0.073)	(0.067)	(0.071)
	0.309	0.329	0.344*	0.357*	0.309	0.329	0.344*	0.357*	0.343*
	(0.238)	(0.236)	(0.177)	(0.197)	(0.238)	(0.236)	(0.177)	(0.197)	(0.176)
	0.119	0.092	0.052	0.086	0.119	0.092	0.052	0.086	0.056
	(0.095)	(0.114)	(0.097)	(0.109)	(0.095)	(0.114)	(0.097)	(0.109)	(0.091)
	0.290	0.274	0.267	0.272	0.290	0.274	0.267	0.272	0.264
	(0.201)	(0.185)	(0.208)	(0.204)	(0.201)	(0.185)	(0.208)	(0.204)	(0.210)

Table 10 (continued)

Dependent variable: <i>years open</i> (duration of the open-cell system measured in years)	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates and interviewer fixed effects and section fixed effects	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates and section fixed effects	With covariates, interviewer fixed effects and section fixed effects
Residence (type prob.)	0.334 (0.247)	0.408 (0.250)	0.390 (0.277)	0.390 (0.271)	0.334 (0.247)	0.408 (0.250)	0.390 (0.277)	0.409 (0.271)	0.390 (0.275)
Job (type prob.)	0.007 (0.176)	0.044 (0.128)	0.115 (0.136)	0.073 (0.126)	0.007 (0.176)	0.044 (0.128)	0.115 (0.136)	0.073 (0.126)	0.114 (0.135)
Contractual liability (type prob.)	0.299***	0.264**	0.096	0.212	0.299***	0.264**	0.096	0.212	0.095
Civil liability (type prob.)	0.102 0.399	0.105 0.346	0.154 0.393	0.156 0.377	0.102 0.399	0.105 0.346	0.154 0.393	0.156 0.377	0.158 0.404
Years open* divorce and children	0.325 0.066*	0.311 0.069*	0.315 0.078*	0.295 0.068*	0.325 0.066*	0.311 0.069*	0.315 0.078*	0.295 0.068*	0.304 0.076*
Years open* legacy	0.038 -0.136	0.040 -0.144*	0.040 -0.176**	0.040 -0.162*	0.038 -0.136	0.040 -0.144*	0.040 -0.176**	0.040 -0.162*	0.040 -0.176**
Years open* house	0.092 0.177**	0.084 0.187***	0.082 0.217***	0.087 0.183***	0.092 0.177**	0.084 0.187***	0.082 0.217***	0.087 0.183***	0.081 0.215***
	0.069	0.058	0.064	0.062	0.069	0.058	0.064	0.062	0.064

Table 10 (continued)

Dependent variable: years open (duration of the open-cell system measured in years)	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates, interviewer fixed effects and section fixed effects	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates and section fixed effects	With covariates, interviewer fixed effects and section fixed effects
Years open* seizure	0.0034	0.012	0.021	0.020	0.0034	0.012	0.021	0.021	0.020
Years open* bankruptcy	(0.043)	(0.036)	(0.037)	(0.037)	(0.043)	(0.036)	(0.037)	(0.035)	(0.037)
Years open* tax	0.056	0.043	0.048	0.050	0.056	0.043	0.048	0.039	0.050
Years open* fines	(0.068)	(0.065)	(0.045)	(0.047)	(0.068)	(0.065)	(0.045)	(0.049)	(0.047)
Years open* residence	0.138***	0.142***	0.145***	0.148***	0.138***	0.142***	0.145***	0.146***	0.148***
Years open* job	(0.018)	(0.028)	(0.024)	(0.025)	(0.018)	(0.028)	(0.024)	(0.025)	(0.025)
Years open* contractual liability	0.014	0.003	0.021	0.027	0.014	0.003	0.021	0.001	0.027
Years open* civil liability	(0.027)	(0.019)	(0.021)	(0.022)	(0.027)	(0.019)	(0.021)	(0.022)	(0.022)
	0.035	0.025	-0.016	0.013	0.035	0.025	-0.016	0.013	-0.019
	(0.137)	(0.157)	(0.168)	(0.163)	(0.137)	(0.157)	(0.168)	(0.151)	(0.163)
	-0.070	-0.105	-0.243	-0.242	-0.070	-0.105	-0.243	-0.205	-0.242
	(0.155)	(0.175)	(0.210)	(0.207)	(0.155)	(0.175)	(0.210)	(0.195)	(0.207)
	-0.240*	-0.220	-0.137	-0.137	-0.240*	-0.220	-0.137	-0.233**	-0.137
	(0.142)	(0.144)	(0.118)	(0.118)	(0.142)	(0.144)	(0.118)	(0.117)	(0.118)
	-0.073	-0.055	-0.060	-0.068	-0.073	-0.055	-0.060	-0.068	-0.073

Table 10 (continued)

Dependent variable: years open (duration of the open-cell system measured in years)	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates and section effects	With covariates, interviewer fixed effects and section fixed effects	Without covariates	With covariates	With covariates and interviewer fixed effects	With covariates and section fixed effects	With covariates, interviewer fixed effects and section fixed effects
Interviewer fixed effects (μ_{int})	Yes	Yes	Yes	Yes	Yes	(0.157) Yes	(0.149) Yes	(0.172) Yes	(0.134) Yes	(0.160) Yes
Section fixed effects (μ_{sect})	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-0.218 (0.210)	-0.109 (0.176)	-0.352 (0.351)	-0.181 (0.182)	-0.204 (0.184)	-0.224 (0.269)	-0.132 (0.217)	-0.314* (0.173)	-0.235 (0.273)	-0.081 (0.428)
Pseudo R2	0.16	0.18	0.20	0.19	0.20	0.18	0.20	0.22	0.21	0.22
Observations	443	443	443	443	443	443	443	443	443	443

Logit estimates. Marginal effects (at the mean) are reported. Standard errors clustered at the problem level in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Columns differ according to the set of explanatory variables: inmates' counterpart in columns 1–5, nature of the problem faced by the inmates in columns 6–10

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