

ARTICLE

"There is More to It than Recidivism" – Outcome Scores among Released Prisoners who participated in Prison-Based "Employment World" Programmes

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Abstract

In the quest for effective prisoner rehabilitation, while there is existing literature that predominantly emphasizes recidivism rates, it is important to recognize that this singular focus may sometimes overshadow the broader dimensions crucial for successful societal reintegration. This study, therefore, investigates the multifaceted outcomes of an employment training programme offered by the Israel Prison Service. Employing propensity score matching, we compared outcomes between programme participants and non-participants. Our analysis encompassed recidivism rates, employment stability, income levels, tax-paying behaviour and welfare service engagement. While recidivism rates remained largely unaffected, our findings unveiled promising results in other domains. Programme participants exhibited enhanced employment stability, realized higher incomes, demonstrated increased engagement in tax-paying and accessed welfare services more frequently. This study underscores the need for a comprehensive approach to assessing rehabilitation effectiveness, extending beyond the singular metric of recidivism. While acknowledging certain limitations, our research highlights that employment training programmes may not have a direct impact on recidivism but can significantly contribute to labour market reintegration and promote more productive and socially responsible behaviours. It advocates further exploring diverse outcome measures to develop holistic rehabilitation strategies.

Keywords: recidivism; propensity score matching; employment; Israel Prison Service

INTRODUCTION

The research literature attributes great importance to integrating released prisoners into the labour market. Engaging in legitimate work in the labour market allows released prisoners to make a respectable living and may neutralize or at least reduce their motivation to take part in criminal activity (Weisburd et al. 2017). Scholars further note that being employed in the labour market enhances

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released prisoners' self-esteem, provides them with a positive social network, a sense of belonging to the community, and conventional lifestyle, going as far as to serve as informal social control for ex-offenders (Hagan and Dinovitzer 1999; Peled-Laskov, Shoham, and Cojocaru 2019; Shoham and Peled-Laskov 2022; Uggen 1999, 2000; Visher, Winterfield, and Coggeshall 2005; Western, Kling, and Weiman 2001; Wilson, Gallagher, and MacKenzie 2000). According to rehabilitation approaches that focus on desistance, genuine rehabilitation is a multiphase process leading to transformation in lawbreakers' lives and selfperception, with desistance being a process of change performed by lawbreakers themselves, at times with the help of experts acting on behalf of the law enforcement system (Ward and Maruna 2007). Integrating into the employment world plays a key role in this multiphase process of change in perception and conduct that affects various aspects of former prisoners' lives (Berg and Huebner 2011; Shoham and Peled-Laskov 2020; Uggen and Staff 2001). To increase released prisoners' employability and their chances of earning a legitimate living following their release from prison, correctional facilities in many Western countries offer professional training programmes of various kinds, such as educational teaching, vocational training, prison industries and employment services (Bouffard, MacKenzie, and Hickman 2000; Davis et al. 2013; Lawrence et al. 2002). The types of training offered to prison inmates vary according to participants' objectives and interests, prison decision-makers budget considerations, the professions in demand by society's labour market, and the availability of facilitators or teaching staff. Although the characteristics of these various types of training programmes differ, their main goal is to provide prisoners with a positive routine, knowledge, tools, working skills and habits that would help them integrate into a labour market profession following their release from prison. Furthermore, these programmes aim to instill a sense of commitment, responsibility and motivation in prisoners to integrate into the labour market.

Most of the available literature that centres on examining the effectiveness of training programmes makes reference primarily to recidivism as an outcome measure (Maltz 1984; Shoham et al. 2017; Walk et al. 2021), although it is often an indirect variable, while the direct variable that should, perhaps, be examined in such studies pertains to former prisoners' post-release employment (Walk et al. 2021). Moreover, for the most part, research literature focuses less on the effects of training programmes that emphasize prisoners' process of entry into the labour market and all of its associated challenges (Shoham et al. 2017).

The present study seeks to fill this gap by examining the effectiveness of an employment training programme offered to prisoners by the Israel Prison Service (IPS), which focuses on helping participants re-enter the labour market. The programme aims to help prisoners write suitable résumés, prepare them for job interviews, and introduce them to personal budget management, business administration, etc. The uniqueness of this study lies in its ability to examine the programme's effectiveness by measuring recidivism and other outcome measures, such as income, tax payment, need for welfare services that are considered positive progress, and referral to out-of-home frameworks.

Barriers and Difficulties in the Reintegration of Released Prisoners into the Labour Market

Significant concerns include barriers and difficulties reintegrating released prisoners into the labour market. Despite the acknowledged importance of helping prisoners find employment upon release (Newton et al. 2018; Sampson and Laub 1997; Uggen 1999; Uggen and Staff 2001; Visher et al. 2005; Wilson 1997; Wilson et al. 2000), numerous studies have highlighted a multitude of obstacles that hinder their successful reintegration into the workforce (Holzer, Raphael, and Stoll 2003; MacKenzie 2008; Newton et al. 2018; Shoham and Peled-Laskov 2020). These challenges extend beyond legal restrictions, such as prohibiting individuals with criminal convictions from assuming government or public positions in many countries (Bloom 2006; Holzer et al. 2003; Pager 2003). Additionally, the personal and personality traits of former prisoners further complicate their employment prospects. Incarcerated individuals often exhibit low cognitive capabilities, limited education and literacy, and inadequate reading and writing skills (Bloom 2006; Davis et al. 2014; Lawrence et al. 2002; Saylor and Gaes 1997; Silver and Nedelec 2018). In the labour market context, released prisoners typically lack a substantial occupational history, marketable skills and professional competencies (Cullen and Gendreau 2000; Davis et al. 2014; Gaes et al. 1999; Lawrence et al. 2002; Petersilia 2003; Visher et al. 2005; Western et al. 2001). Their work history often includes a pattern of unstable employment (National Institute of Justice 2014; Petersilia 2003; Visher et al. 2005; Western et al. 2001), low self-esteem and negative expectations regarding their employability (Saylor and Gaes 1997). Consequently, released prisoners frequently lack the expertise and knowledge to successfully integrate into labour markets (Visher et al. 2005).

Recent in-depth analyses conducted by social work and critical criminology scholars have introduced a more nuanced perspective regarding these challenges. They have shed light on the stigmatizing and exclusionary consequences associated with re-entry programmes (Halushka 2020; Hinton and Cook 2021; Miller 2021; Simon 2010; Thompson 2012). These scholars argue that although re-entry programmes aim to assist formerly incarcerated individuals, they may unintentionally perpetuate societal stereotypes and inequalities. For example, Halushka (2020) suggests that these programmes might inadvertently reinforce negative preconceptions, making it more difficult for ex-offenders to secure employment. Hinton and Cook (2021) delve into systemic issues within re-entry programmes, revealing how they can marginalize specific individuals or communities, thereby impeding their access to vital support.

Furthermore, Miller (2021) underscores the broader societal implications of reentry programmes, linking them to social justice and equity matters. Simon (2010) critically assesses the policies and practices within the criminal justice system that make an impact on re-entry, advocating for more comprehensive and equitable approaches. Thompson (2012) offers insights into the experiences of marginalized populations within the criminal justice system, shedding light on how re-entry programmes can either provide meaningful support or fall short in assisting these individuals.

In light of these critical perspectives, it is evident that addressing the multifaceted challenges that released prisoners face in their quest for labour market integration requires a more comprehensive and equitable approach. Re-entry programmes must consider not only the legal and educational barriers but also the societal attitudes and systemic inequalities that can hinder successful reintegration.

Despite the great importance attributed to prisoners' integration into the labour market (Newton et al. 2018; Sampson and Laub 1997; Uggen 1999; Uggen and Staff 2001; Visher et al. 2005; Weisburd et al. 2017; Wilson 1997; Wilson et al. 2000), studies reveal a large number of barriers and restrictions, impeding the prisoner population's integration into the labour market following their release (Holzer et al. 2003; MacKenzie 2006; Newton et al. 2018; Shoham and Peled-Laskov 2020). For instance, in many countries, offenders convicted of criminal offences have been prohibited by law from assuming government or public positions (Bloom 2006; Holzer et al. 2003; Pager 2003).

Furthermore, prisoners have many personal and personality traits that diminish their chances of being hired. In this context, prisoners typically tend to have low cognitive capabilities, low levels of education and literacy, as well as lesser reading and writing knowledge (Bloom 2006; Davis et al. 2014; Lawrence et al. 2002; Saylor and Gaes 1997; Silver and Nedelec 2018). In the occupational context, released prisoners characteristically have sparse occupational history, few working skills, a lack of professional competencies (Cullen and Gendreau 2000; Davis et al. 2014; Gaes et al. 1999; Lawrence et al. 2002; Petersilia 2003; Visher et al. 2005; Western et al. 2001), a history of unstable employment (National Institute of Justice 2014; Petersilia 2003; Visher et al. 2005; Western et al. 2001), low perceived self-esteem, negative expectations about their ability to get hired, and so on (Saylor and Gaes 1997). As a result, released prisoners lack the expertise and knowledge to integrate into the labour market (Visher et al. 2005).

Given released prisoners' difficulties when attempting to integrate into the labour market, scholars (Visher et al. 2005), as well as prison policymakers and decisionmakers (Newton et al. 2018), have raised the need for effective intervention that would increase prisoners' chances of integrating into the labour market. Moreover, indeed, over the past several decades, many correctional and training programmes have been designed, among other things, to provide inmates with the skills, competencies and knowledge required to integrate into the labour market following their release from prison, as well as persist at their workplace (Bloom 2006; Bouffard et al. 2000; Lawrence et al. 2002; Visher et al. 2005). It is currently common to view the period of incarceration as an opportunity for the law enforcement system to instill working skills and competencies in prisoners while providing them with an education and preparing them for workplace placement following their release (Visher et al. 2005), thereby lowering the risk of these released prisoners' return to active engagement in crime in the future (Bouffard et al. 2000; Bushway and Reuter 2002; Davis et al. 2014; Newton et al. 2018; Visher et al. 2005). Visher et al. (2005) argue that "A good job not only provides the means for basic survival, but also is a key element in rebuilding self-esteem, attachment to a conventional lifestyle, and a sense of belonging in the community."

Employment and the integration into it provide released prisoners with the opportunity to become a productive member of the community while giving them

occupational experience and allowing them to earn a living and provide for their families. Being employed also enables routine and the establishment of positive social ties (Laub and Sampson 2001; Maruna 2001; Sampson and Laub 1997). Integration into the labour market could serve as a promising starting point in ex-offenders' process of re-entrance to society since it is regarded as significant "routine activity" for most released prisoners who seek to find a legitimate source of income (Bucklen and Zajac 2009; Bushway and Apel 2012; LeBel et al. 2008). The result is a former prisoner who successfully integrates into the labour market and can thus play a positive social role with underlying pro-social values. Moreover, for an ex-offender, work stability symbolizes the transition toward a conventional, crime-free life.

Prison-Based Vocational Training Programmes

Prisons in many Western countries offer various kinds of vocational training and employment programmes (Bouffard et al. 2000), such as educational instruction, vocational training, prison industry and employment services (Lawrence et al. 2002). The training programmes offered by prisons differ from one another in numerous aspects. For instance, some prisons allow inmates to choose whether or not to participate in vocational training programmes, while others force prisoners to partake in them (Davis et al. 2013). In addition to prison-based training programmes, some vocational training is offered as part of work release programmes, in which prisoners work in and are supervised by institutions and organizations outside prison walls (Bouffard et al. 2000; Glaze and Parks 2012; National Institute of Justice 2014). The cooperation between correctional facilities and external organizations provides prisoners with valuable work experience, improving their employment options following their release (Bouffard et al. 2000). Such programmes are designed to help prisoners get hired by workplaces following their release and provide them with sequential therapy – including social, mental and medical services – in order to facilitate their coping with the various difficulties associated with reintegration into the community (Lawrence et al. 2002). There are some differences between the various vocational training programmes' characteristics, yet their main aim is to provide prisoners with the positive routine, knowledge, tools, skills and work habits that would help prisoners integrate into a profession in the labour market following their release (Bouffard et al. 2000; Lawrence et al. 2002; National Institute of Justice 2014; Visher et al. 2005). These programmes also aim to instill in prisoners a sense of commitment, responsibility and motivation to integrate into the labour market (Gaes et al. 1999). To this end, prison-based vocational training programmes present prisoners with the opportunity to gain experience, work habits and valuable knowledge in various professions, such as computers (Gaes et al. 1999), hairdressing, car mechanics, building maintenance, electricity, painting, plumbing, food services, cooking, landscaping, custodial maintenance, upholstery, welding, heating, air-conditioning (National Institute of Justice 2014), carpentry, electronic services, art and printing, construction, graphics, and so on (Lawrence et al. 2002).

Economic and Social Outcome Measures beyond Reduced Recidivism Rates

This study investigates the effectiveness of prison-based vocational training programmes, considering a diverse range of outcome measures. While the general recidivism rate (released prisoners' rearrest or reincarceration) and post-release employment are commonly used indicators (Aos, Miller, and Drake 2006; Roberts and Camasso 1990; Seiter and Kadela 2003; Torrey et al. 2014; Wilson et al. 2000), we also explore broader measures encompassing academic achievements (Adams et al. 1994; Davis et al. 2013), prisoners' behaviour while incarcerated (Adams et al. 1994; Davis et al. 2013; French and Gendreau 2006), perceived self-esteem, life satisfaction, ability to afford housing (Torrey et al. 2014), post-release substance abuse, traffic offences, intelligence quotient (IQ) test scores and changes in marital status (Adams et al. 1994). By considering this wide array of indicators, our study aims to comprehensively assess the impact and effectiveness of these vocational training programmes. The benefit of prison-based employment and training programmes is directly linked to one other key outcome measure – post-release employment – which includes various aspects such as employment rates (Drake 2003; Smith et al. 2006; Evans and Koenig 2011; Wilson et al. 2000), time taken to find work following release (Drake 2003; Smith et al. 2006), the ability to keep a job for an extended period and income (Drake 2003; Smith et al. 2006). For example, a meta-analysis (Davis et al. 2013), based on the outcomes of eight prison-based vocational training programmes, found that the chances of released prisoners who had participated in the training programmes finding work were more than double that of released prisoners who did not participate in vocational training programmes.

However, it is worth noting that while previous research on this topic has received criticism for its methodological quality (Bloom 2006; Davis et al. 2013; Lawrence et al. 2002; Newton et al. 2018), our study seeks to distinguish itself by addressing some key limitations that have been identified in the existing literature. One of the primary limitations of prior studies assessing vocational training programmes has been the issue of "selection bias" (Bloom 2006; Wilson et al. 1999, 2000), stemming from potential differences in characteristics between the study and comparison groups (Kim and Clark 2013; Wilson et al. 1999, 2000). Additionally, our research takes a novel approach by considering the significance of aligning training programmes with prisoners' criminogenic needs (Cullen and Gendreau 2000; Newton et al. 2018), adapting them to meet labour market requirements (Hawley, Murphy, and Souto-Otero 2013; Shoham and Peled-Laskov 2022), providing formal graduation diplomas (Erisman and Contardo 2005; Passarell 2013) and offering them near the time of release (Newton et al. 2018). These unique aspects of our study distinguish it from prior research in the field.

The IPS-Based Training Programme

The IPS policymakers have recognized that prisoners should not only be given vocational training but also the kind of training that would prepare them for functioning well within the labour market and provide them with skills such as effective interpersonal communication, time management and problem-solving (Shoham et al. 2017). Moreover, toward the first decade of the twenty-first century, the IPS began to

create courses on topics such as personal budget management, small business management, business entrepreneurship, mediation and computerized warehouse management. During them, prisoners are taught how to write their résumés, pass a job interview, and interact with their superiors or co-workers (Hasisi et al. 2018).

There are designated courses in preparation for the labour market adapted to the courses offered by the Israeli Ministry of Economy on these topics. The IPS believes that vocational training alone does not suffice, as a person should also be taught how to adjust to the employment world and dynamic requirements while learning how to interact with superiors and co-workers. Participants may be dismissed from these courses if they fail to follow the IPS code of conduct, for instance, by skipping class unjustifiably, lacking discipline or motivation, and having an insufficiently low level of learning. Prisoners are dismissed by the vocational training officers after being called in for a talk. The prison warden is then notified of the dismissal, recorded alongside the reasons that led to it in the prisoner's personal file. The courses are taught by external teachers via a tender issued by the IPS and take place in the IPS training centres in each criminal correctional facility. They last between 30 and 50 hours, allowing prisoners to begin and complete a course within one month and move directly on to the follow-up course. Courses open with a minimum number of 15 participants. Admission criteria are the ability to read and write, the approval of both intelligence and security officers, recommendations from both the social worker and wing commander, the prisoner's request to participate in the course, and passing an admission interview.

As mentioned, the present paper will focus on this one kind of vocational training programme preparing prisoners for the employment world in Israeli prisons and is based on a quasi-experimental study employing a strong methodology that examines various outcome measures beyond the measure of recidivism and monitors ex-offenders for up to five years following their release from prison. We hypothesize that prisoners who participated in the vocational training programmes known as "preparation for the employment world" will be less likely to return to crime than similar, non-participant prisoners. The study further hypothesizes that prisoners who participated in employment world preparatory courses will exhibit more positive results on other outcome measures, such as employment, income, tax-paying and need for welfare services, compared to similar prisoners who did not participate in such programmes.

METHOD

Our study used a comprehensive dataset comprising 57,783 Israeli residents released from IPS facilities between 2004 and 2012. This dataset, obtained from the IPS data system known as "Tzohar", provided a wealth of information on various aspects. Regarding sociodemographic attributes, we collected data on factors such as new immigrant status, marital status, nationality (Jewish), age and years of schooling. Additionally, the dataset included details about prisoners' criminal backgrounds, encompassing variables like the number of prior incarcerations, age at the first incarceration, classification as violent by law and by IPS standards, sentence duration in months, involvement in sexually based offences, offences against human life,

violent offences, property offences and drug-related offences. We also documented the year of release and indicators of alcohol and drug abuse. Regarding data access, it is important to clarify that we obtained this dataset as part of a research grant awarded to our team from the Hebrew University of Jerusalem, led by the authors, in collaboration with a team at Ashkelon College, led by Professor Efrat Shoham. The grant, totalling 1,000,000 New Israeli Shekels (approximately 275,000 US dollars), was specifically allocated for evaluating various rehabilitation programmes within the IPS. The dataset was made available to our research team for this study, and we adhered to ethical and legal guidelines for its utilization.

Of the 57,783 prisoners included in the data file, 2,519 participated in some vocational training programme; of them, 758 participated in "employment world" training (small business management, preparation for the employment world, business entrepreneurship, personal budget management and business budget management).

The comparison group for the training programme was comprised of the 57,783 prisoners contained in the data file. To form the comparison group for the "employment world" training programme, 1,760 prisoners who had participated in another training programme were filtered out of the data file to maintain the clean "employment world" programme-only effect. Once omitted, the comparison group consisted of 55,264 prisoners.

Propensity score matching (PSM) matched the comparison group to the prisoners who participated in the "employment world" programme. This method was chosen to minimize participant selection bias and ensure that members of the comparison group would be as similar to those of the study group as possible, except that they were not themselves part of the participants' group (Jordan 2012). The first phase of calculating the propensity score was selecting the variables to calculate the probability of participating in the programme. These variables included prisoners' sociodemographics, alcohol abuse, incarceration characteristics, criminal history, profile and characteristics while in prison. Propensity scores were calculated using a statistical model that predicts propensity based on subjects' background characteristics. Each prisoner received a value between 0 and 1, with 0 expressing zero probability and 1 expressing a certain probability of participating in the programme.

Once each prisoner's probability of being included in a training programme was calculated, every prisoner who had indeed participated in the programme was "matched" with another prisoner whose score was the most similar to his (his "twin") out of the group of non-participant prisoners. Since the groups of prisoners who participated in the training programmes were sufficiently large, the "best match" method was used, whereby each study participant was matched with a single subject from the non-participant group (the single match approach). For each subject in the group of vocational training programme participants, a prisoner with the closest propensity score was selected from the comparison group. A 0.01 calliper was used for the selection, meaning that the match was only made if the comparison group subject's score was within a range of 1% of the participation probability of the subject in the participant's group. Once the matched sample had been completed, a test was carried out to ensure that the propensity score approach resulted in balanced samples and that no consistent differences could be found between the groups in the variables used for the selection process.

Matching the Comparison Group to the Employment World Programme Participants

The group of prisoners who participated in the "employment world" programme consisted, prior to matching, of 758 prisoners with an average "matching" score of 0.04 (standard deviation [SD] = 0.005, minimum = 0.00, maximum = 0.59). The comparison group of prisoners who did not participate in the programme consisted, prior to matching, of 55,264 prisoners with an average propensity score of 0.01 (SD = 0.02, minimum = 0.00, maximum = 0.88). Following matching, the training group consisted of 757 prisoners with an average propensity score of 0.04 (SD = 0.05, minimum = 0.00, maximum = 0.59), and the comparison group too consisted of 757 prisoners with an average propensity score of 0.04 (SD = 0.05, minimum = 0.00, maximum = 0.59).

Table 1 compares the prisoners who participated in the "employment world" programme and the comparison group before and after matching. The significance of the differences between them was tested using the χ^2 test for nominal variables and the t test for continuous variables.

Differences existed between the treatment and control groups in 10 variables: sentence duration; against human life offence; violence by law; property offence; drug-related offence; sexually based offence; nationality; number of years of schooling; drug abuse; and alcohol abuse. These disparities encompassed various dimensions, including sociodemographic attributes like marital status and nationality, where the control group had a higher percentage of married individuals and a greater representation of Jewish nationality.

Additionally, differences were observed in criminal background and profile, with the control group showing a slightly higher average number of prior incarcerations. Notable variations in incarceration characteristics included differences in the percentage of individuals incarcerated for violent offences by law and average sentence duration. Disparities in prisoner characteristics extended to variations in the reported prevalence of alcohol abuse and drug abuse. However, the rigorous application of propensity score matching effectively mitigated these differences, resulting in a more balanced and comparable comparison between the treatment and control groups. To comprehensively evaluate the effectiveness of the IPS "employment world" training programme, our analysis began by comparing general recidivism risk among programme participants and non-participants. Subsequently, we merged the dataset containing the treatment and matched comparison groups with the Israel Central Bureau of Statistics data. This integration was achieved by matching individual prisoners using their unique Israeli IDs, allowing us to track each participant precisely after release.

We employed specific statistical tests to assess the significance of our findings and discern differences between the treatment and matched comparison groups across various outcome measures. Specifically, we utilized χ^2 tests to examine reincarceration and rearrest rates and the rates of prisoners registered with welfare services. In parallel, we conducted t tests to appropriately analyse the number of months employed yearly, annual income and annual tax payments. Cohen's d was also calculated to provide further insight into the effect size associated with these measures. This meticulous and comprehensive statistical approach empowered us to conduct a comprehensive analysis of diverse dimensions beyond recidivism,

Table 1. Comparison of Group of Prisoners Who Participated in the "Employment World" Programme and Comparison Group, Before and After, Based on Propensity Scores Matching

	Before Match	ning ($n = 56,022$)	After Matching ($n = 1,514$)		
	Training Group (n = 758)	Comparison Group $(n = 55,264)$	Training Group $(n = 757)$	Comparison Group ($n = 757$	
Sociodemographics					
New immigrant (%)	20.1	18.3	20.1	19.4	
Married (%)	34.6	33.0	34.5	35.1	
Nationality (Jew) (%)	64.1***	57.9***	64.1	65.9	
Age (years)	33.00	33.63	33.0	33.51	
Number of years of schooling	9.50***	8.16***	9.50	9.74	
Criminal background and profile					
No. of prior incarcerations	2.10	2.20	2.10	2.20	
ncarceration characteristics					
Age at first incarceration (years)	27.40	27.60	27.40	27.60	
Violent by law (%)	12.1***	18.8***	12.1	11.8	
Violent by Israel Prison Service (%)	3.8	4.5	3.8	3.4	
Sentence duration (months)	32.60***	13.00***	32.60	29.40	
Sexually based offence (%)	14.1***	4.1***	14.1	15.4	
Against human life offence (%)	9.10***	2.2***	9.10	6.70	
Violent offence (%)	45.4	44.4	45.4	42.7	
Property offences (%)	37.5*	33.2*	37.5	36.9	
Drug-related offences (%)	27.8***	22.3***	27.9	31.6	
Year of release	2009.2	2008.1	2009.2	2009.4	
Prisoner characteristics					
Alcohol abuse (%)	2.6**	5.2**	2.6	2.8	
Drug abuse (%)	24.8*	21.4*	24.8	26.4	

^{*} p < 0.05, ** p < 0.01, *** p < 0.001.

reinforcing the robustness of our analysis and enhancing the clarity of the interpretation of our results.

RESULTS

As mentioned in the Method section, we will begin by comparing the test and control groups' recidivism rates (general rearrests and reincarcerations) and then examine the differences between the two groups in the other outcome measures previously mentioned. The rates of recidivism among participants in the "employment world" programmes were examined using two measures: rearrests and reincarcerations. While monitored, the number of prisoners in each group – the training group and comparison group - was identical throughout the monitoring period: after one year, two years, three years, four years and five years. Naturally, the rate of recidivism cannot diminish over the years. In the file used in the present study, no recidivism data exist for the later years of prisoners released in later years since the file was closed before the monitoring period had terminated. Therefore, the follow-up each year was conducted only for the group of prisoners for which we had recidivism data, and therefore, the groups of prisoners became smaller as the years progressed. Under these circumstances, whereby the recidivism among a different-sized group was measured each year, a decline in recidivism may emerge as the years progress. The decline in the number of training group and comparison group participants also affects statistical power and the possibility of reaching statistical significance in the later years of the monitoring period.

It is further noted that the test group includes all prisoners who participated in the programme, including ex-offenders who were re-incarcerated during the monitoring period.

Reincarcerations: "Employment World" Training Programme Participants

Table 2 shows the reincarceration rates among prisoners who participated in the "employment world" programme *versus* those of the comparison group. The findings reveal no significant differences in the reincarceration rate between the participant and non-participant groups throughout the monitoring period.

Rearrests: "Employment World" Training Programme Participants

Table 3 shows the rearrest rates among prisoners who participated in the "employment world" programme *versus* those of the comparison group. The findings reveal consistently lower recidivism rates among members of the training group compared to members of the non-participant group throughout the monitoring period. A statistically significant difference was only found between the two groups in the third year of monitoring, with a small effect. That year, the risk of rearrest was 11.30% lower among the training group prisoners than in the comparison group.

As the findings of the first part show, the data on the effectiveness of the "employment world" programme are not encouraging where recidivism rates are

Table 2. Rate of Reincarcerations Following Release among Prisoners Who Participated/Did Not Participate in the "Employment World" Training Programme

	After One Year	After Two Years	After Three Years	After Four Years	After Five Years
Comparison group					
n	757	757	728	560	424
Proportion (%)	17.97	25.63	30.91	34.64	37.26
Training group					
n	757	757	728	560	424
Proportion (%)	14.80	24.17	29.22	31.83	34.42
χ²	2.78	0.43	0.49	1.03	0.77
Cohen's d	-	-	-	-	-

Table 3. Rate of Rearrests Following Release among Prisoners who Participated/Did Not Participate in the "Employment World" Training Programme

	After One Year	After Two Years	After Three Years	After Four Years	After Five Years
Comparison group					
n	757	757	728	560	425
%	30.65	42.93	51.37	54.11	56.47
Training group					
n	757	757	729	600	459
%	27.34	38.97	45.54	49.00	52.07
χ ²	2.00	2.46	4.96*	3.02	1.72
Cohen's d	-	-	0.1	-	-

^{*} p < 0.05.

concerned. This fact heightens the need to examine additional outcome measures that could attest to the programme's effectiveness.

Employment Months: "Employment World" Training Programme Participants versus the Control Group

Table 4 shows the number of months of employment yearly among the prisoners who participated in the training programmes *versus* those of the comparison group. For the first four years following release, the average number of employment months among the prisoners who participated in the "employment world" programmes was significantly higher than the control group. The average number

	After One Year	After Two Years	After Three Years	After Four Years	After Five Years
Comparison group					
n	696	699	581	453	319
Mean	3.38	2.41	2.03	1.63	1.56
Standard deviation	4.56	4.20	4.01	3.71	3.68
Training group					
n	701	699	603	484	376
Mean	4.88	3.22	2.86	2.97	1.97
Standard deviation	4.96	4.69	4.47	4.57	4.05
t test	5.88***	3.42***	3.35***	4.91***	1.38
Cohen's d	0.31	0.18	0.2	0.32	-

Table 4. Number of Employment Months Yearly among Prisoners Who Participated/Did Not Participate in the "Employment World" Training Programme

of employment months at the end of the first year following release among "employment world" programme participants was 44.37% higher than that of the control group. Two years after release, the average number of employment months among "employment world" programme participants was 33.61% higher than that of the control group. Three years after their release from prison, the average number of employment months among "employment world" programme participants was 40.88% higher than that of the control group, and four years after release, it was 98.77% higher than that of the control group. The effect size was small to medium throughout the first four years of the monitoring period.

Annual Income: "Employment World" Programme Participants versus the Control Group

Table 5 shows the average annual income of prisoners participating in the "employment world" training programme *versus* the control group. Throughout the monitoring period, the average annual income among the prisoners who participated in the "employment world" programme was significantly higher than that of the control group. The average annual income at the end of the first year following release among "employment world" programme participants was 52.64% higher than that of the control group. Two years after release, the average annual income among programme participants was 51.12% higher than that of the control group. Three years after their release from prison, the average annual income among programme participants was 54.62% higher than that of the control group. Four

^{***} p < 0.001.

	After One Year	After Two Years	After Three Years	After Four Years	After Five Years
Comparison group					
n	703	703	585	456	322
Mean	16,597	13,013	12,060	9,946	9,450
Standard deviation	28,842	28,125	29,884	29,512	29,328
Training group					
n	711	715	621	504	384
Mean	25,335	19,666	18,648	20,607	13,772
Standard deviation	39,038	36,723	39,008	42,871	37,111
t test	4.78***	3.82***	3.28***	4.44***	1.69*
Cohen's d	0.25	0.2	0.19	0.29	0.13

Table 5. Annual Income (New Israeli Shekels) among Prisoners Who Participated/Did Not Participate in the "Employment World" Training Programme

years after release, it was 107.18% higher; five years post-release, it was 45.73% higher. The effect size was small to medium throughout the monitoring period.

Annual Tax Payment: "Employment World" Programme Participants versus the Control Group

Table 6 shows the average annual tax payment among prisoners who participated in the "employment world" training programme *versus* the control group. During the first two years following their release, the average annual tax payment among the prisoners who participated in the "employment world" programme was significantly higher than that of the control group. The average annual tax payment at the end of the first year following release among "employment world" programme participants was 108.36% higher than that of the control group, and two years after release, it was 80.94% higher. The effect size was small throughout the first two years post-release.

Rate of Prisoners Registered with the Welfare Services: "Employment World" Programme Participants versus the Control Group

Table 7 shows the rate of prisoners registered with the welfare services among the group of prisoners who participated in the "employment world" training programme *versus* the control group. It seems that, during the first three years of monitoring, the rate of prisoners registered with the welfare services among the prisoners who participated in the "employment world" programme was significantly higher compared to that of the control group. The rate of prisoners registered with the welfare services at the end of the first year following release

^{*} p < 0.05, *** p < 0.001.

	After One Year	After Two Years	After Three Years	After Four Years	After Five Years
Comparison group					
n	705	705	586	459	323
Mean	502	446	466	461	424
Standard deviation	2,527	2,414	3,220	4,315	4,405
Training group					
n	716	718	622	506	385
Mean	1,046	807	859	858	748
Standard deviation	6,960	5,108	5,845	6,478	5,508
t test	1.95*	1.70*	1.43	1.11	0.85
Cohen's d	0.1	0.90	-	-	-

Table 6. Annual Tax Payment (New Israeli Shekels) among Prisoners Who Participated/Did Not Participate in the "Employment World" Training Programme

among "employment world" programme participants was 13.98% higher than that of the control group. Two years after release, the rate of prisoners registered with the welfare services among programme participants was 16.97% higher than that of the control group, and three years into the monitoring period, it was 19.54% higher. The effect size was small in those years.

It is noteworthy that, while examining other "employment world" programme outcome measures, a test was conducted to examine the differences between "employment world" programme participants and the control group in the measure of prisoners placed in out-of-home frameworks; however, throughout the monitoring period, no statistically significant differences were found.

DISCUSSION

The prevailing approach in evaluating the effectiveness of rehabilitation programmes has traditionally centred on comparing recidivism rates between programme participants and non-participants. While recidivism remains the primary metric for assessing the efficacy of rehabilitation programmes (Bales et al. 2016; Ellison et al. 2017; Gibbons 1999; Sechrest, White, and Brown 1979), recent studies have shifted their focus towards exploring the impact of these programmes on a broader range of outcome measures beyond recidivism (Cook et al. 2015; Creese 2016; Hunter and Boyce 2009; Skardhamar and Telle 2012).

This study distinguishes itself by examining the programme through the lens of recidivism and incorporating additional economic and social outcome measures. These measures include employment, income, tax contributions, acknowledgement of the

^{*} p < 0.05.

0.12

	' '		0 0	0 0		
	After One Year	After Two Years	After Three Years	After Four Years	After Five Years	
Comparison group						
N	709	709	592	463	324	
%	42.2	37.7	34.8	34.1	33.6	
n	299	267	206	158	109	
Training group						
N	721	721	623	507	387	
%	48.1	44.1	41.6	38.1	35.4	
n	347	318	259	193	137	
χ²	5.12*	6.14*	5.89*	1.63	0.24	

0.12

0.12

Table 7. The Rate of Prisoners Registered with the Welfare Services among Prisoners Who Participated/ Did Not Participate in the "Employment World" Training Programme

Cohen's d

need for welfare services, and engagement with out-of-home frameworks among released prisoners who participated in an employment training programme designed to prepare offenders for re-entry into society. To mitigate the inherent selection bias when forming a control group, this study employed PSM to minimize bias in subject selection, ensuring comparability between programme participants and non-participants (Jordan 2012). The findings of this study reveal that while programmes aimed at preparing inmates for employment did not emerge as strong drivers of significant change in reported recidivism rates when compared to a control group comprised of individuals who did not partake in such programmes, a notable difference becomes evident when examining additional outcome measures. Specifically, released prisoners who had participated in programmes focused on employment persevered and retained their jobs for nearly twice as long (44.7%) as their non-participant counterparts during the first 12 months following their release – a period recognized in the research literature as the time when former prisoners are most susceptible to recidivism (Shoham and Peled-Laskov 2022). Intriguingly, this significant difference persisted over the subsequent four years, with the average number of employment months yearly among programme participants being nearly 100% larger (98.77%) than that of their non-participant peers. A similar pattern emerged when assessing average annual income.

These findings raise a compelling question: how do these programmes succeed in enhancing pro-social behaviours among released prisoners while falling short in reducing recidivism? The answer lies in the programme's primary objective, which is to transform the daily activities of released prisoners and promote their integration into society through legal employment and income generation. The underlying assumption is that these positive activities will, in due course, influence criminal involvement and recidivism, thus resulting in an indirect and seemingly weak correlation between rehabilitation programmes and recidivism.

^{*} p < 0.05.

Indeed, the integration of employment serves as a foundational stepping stone for released prisoners re-entering society, offering a legitimate source of income and playing a vital role in shaping their daily routines and adherence to pro-social norms (Bucklen and Zajac 2009; Bushway and Apel 2012; LeBel et al. 2008). Over the past two decades, the research literature has underscored the importance of assessing perseverance in the workplace (Duwe 2015) and examining average wages as an indicator of released prisoners' reintegration into the community (Peled-Laskov et al. 2019). Many released prisoners carry numerous debts and fines (Pogrebin et al. 2014), making their integration into employment with appropriate pay a pivotal element in their rehabilitation process - a potential turning point in their criminal trajectories (Duwe 2015; Skardhamar and Telle 2012). It is important to acknowledge that the programme under study goes beyond mere vocational training. It places significant emphasis on equipping participants with practical skills and attitudes necessary not only to secure employment but to thrive in a workplace environment. This holistic approach includes imparting effective interpersonal skills, emphasizing qualities such as persistence and punctuality, and providing valuable lessons on financial management and personal responsibility.

The significance of this nuanced approach becomes evident when attempting to explain the observed outcomes in our study. By focusing on more than just vocational skills, the programme equips released prisoners with broader tools needed to excel in the workforce. This multifaceted approach may, in part, elucidate the positive occupational outcomes observed among programme participants.

Furthermore, considering the unique sociocultural context of Israel, influenced by factors such as Judaism, the concept of repentance (Haviv et al. 2020) and legal restrictions on inquiring about criminal history during hiring (Peled et al. 2019), provides insights into the complexities surrounding our findings. These factors probably contribute to positive employment outcomes and the reduction of stigma associated with a criminal record, further reinforcing the programme's success. In this context, our study's findings reveal that, at the end of the first year following release, prisoners who had participated in the employment programmes earned annual wages 52% higher than those in the comparison group. This substantial difference persisted throughout the five-year monitoring period. The decision to focus on the earnings of former prisoners, rather than just their employment status, aligns with existing research indicating that integration into legitimate work bolsters released prisoners' self-esteem, enabling them to earn a living and support their families with dignity (Drake 2003; Smith et al. 2006). Adequate pay can contribute to workplace stability and a positive routine, thereby reinforcing the adoption of pro-social values. It is worth noting that the gap between the two groups could be attributed to the larger number of hours worked by released prisoners who participated in the employment training programme, as opposed to securing higher-paying jobs with greater potential for reducing recidivism (Ramakers et al. 2016; Uggen 1999).

As mentioned earlier, this study aimed to explore measures associated with prosocial values and the often-perceived indirect variables related to recidivism. According to desistance-oriented rehabilitation approaches, genuine rehabilitation involves a transformation in the lives and self-perception of lawbreakers, with crime desistance representing a gradual process of change and integration into the community. Fair compensation and positive self-perceptions are pivotal in this

process (Raphael 2007; Shoham and Peled-Laskov 2020). Tax-paying can also be viewed as an expression of pro-social values and normative lifestyles embraced by former prisoners. Our study demonstrates that, in the first two years following release, the rate of taxpayers among programme participants was significantly higher than among non-participants.

A similar trend emerged when examining registration with welfare services. During the first three years following their release from prison, a significantly higher proportion of released prisoners who participated in employment programmes were registered with welfare services to receive various benefits. While there is a tendency to view the need for assistance from welfare services as a sign of weakness, among the deprived population of released prisoners, seeking help upon re-entering society should be considered a positive step. Welfare personnel consulted by the authors have explained that it reflects the former prisoners' willingness to adhere to the accepted rules of societal engagement and is in line with the principles of the crime desistance theory (Maruna 2010). This theory posits that work integration and taxpaying signify the embrace of positive pro-social values and a willingness to cooperate with state systems and adhere to social norms - an integral part of the crime desistance process (Shoham and Peled-Laskov 2022). This study sheds light on the effectiveness of a specific prison employment programme within the IPS. However, several limitations warrant consideration. One limitation is the inclusion of participants who returned to prison in the analysis of occupational outcomes, potentially introducing bias. To isolate the programme's pure impact on occupational outcomes, the analysis should have included only participants who completed the programme without returning to prison.

Notwithstanding this limitation, the positive impact on occupational measures, the statistically significant improvements in income, months of employment yearly, tax payment rate and welfare registration rate compared to the control group all suggest that the programme is effective in improving occupational outcomes, contrary to what might be expected given the lack of improvement in recidivism. Since this programme was not primarily designed to reduce recidivism, further investigation is needed to understand the complex and multidimensional correlation between employment and criminality.

Another limitation is the omission of post-release supervision from the control variables, which may have influenced the results. However, due to the nature of PSM analysis, variables that the programme can influence cannot be included.

In summary, while this study provides valuable evidence of the effectiveness of a prison-based employment programme, the highlighted limitations underscore the need for further research to confirm and expand upon these findings. The study emphasizes that assessing the effectiveness of various programmes designed to reintegrate former prisoners into the community requires a broader perspective encompassing a wider range of outcome measures beyond formal measures of rearrest and reincarceration rates. Much remains to be explored in the intricate and lengthy process of reintegrating former prisoners into society, necessitating additional quantitative and qualitative studies to elucidate the significance of different variables in this multifaceted re-entry and crime desistance process. As demonstrated in this study, leveraging robust statistical matching methods and adopting the perspective of released prisoners themselves could contribute to

developing more comprehensive and effective intervention programmes within the corrections system.

CONCLUSION AND FUTURE DIRECTIONS

In conclusion, this study has offered valuable insights into the effectiveness of a prison-based employment programme, highlighting its significant impact on employment, income, tax compliance, welfare services utilization and overall prosocial habits among released prisoners. While the findings indicate that the programme may be ineffective in reducing recidivism, it has shown promise in enhancing various aspects of the lives of those re-entering society. As emphasized in the literature review, the next critical step is recognizing the detrimental effects of stigmatization, exclusion and systemic inequalities often accompanying re-entry initiatives. As evidenced by the work of scholars in social work and critical criminology, including Halushka (2020), Hinton and Cook (2021), Miller (2021), Simon (2010) and Thompson (2012), these aspects cannot be overlooked. Therefore, policymakers must take proactive measures to improve the overall impact of re-entry programmes while addressing these systemic challenges.

Moving forward, policymakers should consider the following steps to enhance the effectiveness of re-entry programmes:

- 1. Comprehensive assessment: Conduct a thorough assessment of existing reentry programmes to identify areas where improvements can be made. This assessment should include input from formerly incarcerated individuals and experts in the field.
- 2. Anti-stigmatization initiatives: Develop strategies to counteract stigmatization and negative stereotypes faced by released prisoners. Public awareness campaigns, anti-discrimination policies and employer education initiatives can be instrumental in challenging societal biases.
- Equity in access: Ensure that re-entry programmes are designed with a focus on equity. Address systemic barriers disproportionately affecting marginalized communities and promote fair access to support services for all individuals.
- 4. Social justice frameworks: Frame re-entry programmes within a broader social justice and equity context. Policies should actively reduce societal disparities and promote fair opportunities, aligning with broader social justice goals.
- 5. Holistic approaches: Promote comprehensive re-entry approaches that address not only legal and educational barriers but also broader societal and systemic factors. This includes providing support for mental health, substance abuse treatment, housing and family reunification.
- 6. Research and evaluation: Invest in ongoing research and evaluation of reentry programmes to measure their impact on various outcome measures, including employment, income and recidivism. This research can inform evidence-based practices and policy adjustments.

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TRANSLATED ABSTRACTS

ABSTRACTO

En la búsqueda de una rehabilitación efectiva de los reclusos, si bien existe literatura que enfatiza predominantemente las tasas de reincidencia, es importante reconocer que este enfoque singular a veces puede eclipsar las dimensiones más amplias cruciales para una reintegración social exitosa. Por lo tanto, este estudio investiga los resultados multifacéticos de un programa de capacitación laboral ofrecido por el Servicio Penitenciario de Israel. Utilizando el emparejamiento por puntuación de propensión, comparamos los resultados entre los participantes y los no participantes del programa. Nuestro análisis abarcó las tasas de reincidencia, la estabilidad del empleo, los niveles de ingresos, el comportamiento tributario y la participación en los servicios de bienestar social. Si bien las tasas de reincidencia no se vieron afectadas en gran medida, nuestros hallazgos revelaron resultados prometedores en otros dominios. Los participantes del programa exhibieron una mayor estabilidad laboral, obtuvieron mayores ingresos, demostraron un mayor compromiso en el pago de impuestos y accedieron a servicios de bienestar social con mayor frecuencia. Este estudio subraya la necesidad de un enfoque integral para evaluar la efectividad de la rehabilitación, que se extienda más allá de la métrica singular de la reincidencia. Si bien reconocemos ciertas limitaciones, nuestra investigación destaca que los programas de capacitación laboral pueden no impactar directamente la reincidencia, pero pueden contribuir significativamente a la reintegración al mercado laboral y promover comportamientos más productivos y socialmente responsables. Aboga por seguir explorando diversas medidas de resultados para desarrollar estrategias de rehabilitación holísticas.

Palabras clave: reincidencia; coincidencia de puntuación de propensión; empleo; servicio penitenciario israelí

ABSTRAIT

Dans la poursuite d'une réadaptation efficace des détenus, bien qu'il existe des publications qui mettent principalement l'accent sur les taux de récidive, il est important de reconnaître que cette focalisation singulière peut parfois éclipser les dimensions plus larges cruciales pour une réinsertion sociale réussie. Par conséquent, cette étude examine les résultats multiformes d'un programme de formation professionnelle proposé par le service pénitentiaire israélien. À l'aide de l'appariement des scores de propension, nous avons comparé les résultats entre les participants et les non-participants au programme. Notre analyse a porté sur les taux de récidive, la stabilité de l'emploi, les niveaux de revenus, le comportement fiscal et la participation aux services de protection sociale. Même si les taux de récidive n'ont pas été modifiés en grande partie, nos constatations ont révélé des résultats prometteurs dans d'autres domaines. Les participants au programme ont fait preuve d'une plus grande stabilité d'emploi, ont gagné des revenus plus élevés, ont fait preuve d'un plus grand engagement à payer des impôts et ont eu recours plus fréquemment aux services de protection sociale. Cette étude souligne la nécessité d'une approche globale pour évaluer l'efficacité de la réadaptation, allant au-delà de la seule mesure de la récidive. Même si nous reconnaissons certaines limites, nos recherches soulignent que les programmes de formation professionnelle n'ont peut-être pas d'impact direct sur la récidive, mais peuvent contribuer de manière significative à la réintégration sur le marché du travail et promouvoir des comportements plus productifs et socialement responsables. Il préconise de continuer à explorer diverses mesures de résultats pour développer des stratégies de réadaptation holistiques.

Mots-clés: récidive; correspondance des scores de propension; emploi; service pénitentiaire israélien

抽象的

背景:在追求囚犯有效康复的过程中,虽然有文献主要强调累犯率,但重要的是要认识到,这种单一的关注有时会掩盖对成功重新融入社会至关重要的更广泛的维度。因此,本研究调查了以色列监狱管理局提供的职业培训计划的多方面成果。方法:使用倾向评分匹配,我们比较了项目参与者和非参与者之间的结果。我们的分析涵盖累犯率、就业稳定性、收入水平、纳税行为和社会福利服务参与度。研究结果:虽然累犯率基本上不受影响,但我们的研究结果揭示了其他领域的有希望的结果。项目参与者表现出更高的工作稳定性,获得更高的收入,表现出更大的纳税承诺,并更频繁地获得社会福利服务。

讨论:这项研究强调需要一种综合方法来评估康复的有效性,而不仅仅是累犯的单一指标。 虽然我们认识到某些局限性,但我们的研究强调,职业培训计划可能不会直接影响累犯,但可以极大地促进劳动力市场的重新融入,并促进更具生产力和对社会负责的行为。 他主张继续探索各种结果衡量标准,以制定整体康复策略。关键词。 累犯、倾向得分匹配、就业、以色列监狱管理局

关键词。: 累犯; 倾向得分匹配; 就业; 以色列监狱管理局

خلاصة

الخلفية: في السعي لاعادة التأميل الفعال للسجناء، على البرغم من وجود الأدبيات التي توقد في العالم المنافي المنافي المنافي المنافية المنافي

الطريقة: باستخدام مطابقة درجات المهيل، قمنا بمقارنة النتائج ببين المشاركين في البيرنامج وغير المشاركين. غطى تحليلنا معدلات العودة إلى الهجرام، واستقرار الستوظيف، ومستويات الدخل، والسلوك الضريبي، والمشاركة في خدمات الرعاية الهجتماعية.

النتائج: في حين أن معدلات العودة إلى الإجرام لم تتاشر إلى حد كبير، فقد كشفت النتائج النتائج النتائج تحديد في حين أن معدلات العودة إلى الإجرام لم تتاشر إلى حد كبير، فقد كشفت النسائج قدرا السي توصلانا إليه عن نتائج واعدة في مجالات أخرى. وأظعر المشاركون في البرنامج قدرا أكبر من الاستقرار الوظيفي، وحصلوا على دخل أعلى، وأظعروا التزام الكبر بدفع الضررائب، وحصلوا على خدمات الرعاية الاجتماعية بشكل متكور.

المناقشة: تنوكد هذه الدراسة على الحاجة إلى التباع نهج شامل لتتقييم فعالية إعادة التأهيل، بما يسما يستجاوز المقياس المفرد للعود إلى الباجرام. وبينما ندرك بعض القيود، فإن بحضنا يسلط الضوء على أن برامج التدريب الوظيفي قد لا تتؤشر بشكل مباشر على العودة إلى الباجرام، ولكنه المحدود أن تسامم بشكل كبير في ياعادة البادماج في سوق العمل وتعزيز سلوكيات النشر المناهم بشكل للمناهم وموردة المناهم والكنه المناهم والمناهم بشكل المناهم المناهم

الكلمات الدالة. العودة إلى الإجرام، مطابقة درجات المهيل، التوظيف، مصلحة السجون الالسارائيلية

الكامات الدالة: العودة إلى الإجرام، مطابقة درجات الميل، التوظيف، مصلحة السجون الإسرائيلية

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