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From prison to work? Job-crime patterns for women in a precarious labor market☆

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A R T I C L E   I N F O

A B S T R A C T

Finding and retaining a job is one of the most challenging problems women confront after being released from prison. Given the dynamic and fluid interactions between legal and illegal work, we argue that to better identify and describe job trajectories after release, we must simultaneously consider disparities in work types and offending behavior. We leverage a unique dataset – the *Reintegration, Desistance and Recidivism Among Female Inmates in Chile* study– to describe patterns of employment within a cohort of 207 women during the first year after being released from prison. By considering different types of work (i.e., self-employed/employed, legitimate/under- the- table) and including offending as another type of income-generating activity, we adequately account for the intersection between work and crime in a particularly understudied population and context. Our results reveal *stable heterogeneity* in employment trajectories by job type across respondents but limited overlap between crime and work despite the high levels of marginalization in the job market. We discuss the role of barriers to and preferences for certain types of jobs as possible explanations for our findings.

1. Introduction

Getting a job is a key indicator of successful integration but one of the main challenges that formerly-incarcerated people confront upon release. Beyond the history of disadvantages, their human and social capital deficits are further worsened by additional barriers associated with a criminal record (Pager, 2003; Visher et al., 2011). Thus, employment at reentry is rather unusual (Apel and Sweeten, 2010; Visher et al., 2011). As an alternative, and given the difficulties of being hired, individuals released from prison end up choosing informal, illegal, or self-employed jobs (Finlay et al., 2021).

However, little evidence exists regarding the types of jobs available to individuals released from prison, and previous research has analyzed employment primarily as a binary phenomenon (employed versus not employed). Studies based on administrative data, for instance, account only for those jobs that are "on the books" (Harding et al., 2019), likely underestimating employment. On the other hand, survey-based research often does not ask for specific types of jobs (Western et al., 2015), making it difficult to differentiate between them and assess their respective contributions to reducing future offending. Moreover, while evidence suggests legal and illegal activities can overlap (Fagan and Freeman, 1999) and reinforce each other over time (Loughran et al., 2017), interactions between employment and crime are often overlooked when describing post-release trajectories (e.g., Sugie, 2018; Western and Sirois, 2019). The overlap between legal and illegal activities could be particularly relevant in contexts of high informality (Crutchfield, 2014), as individuals use any available income-generating opportunities to make ends meet (Nguyen, 2021; Sugie, 2018).

The limited information on work and crime trajectories is especially salient for women released from prison. Although women represent a small percentage of the overall prison population (Walmsley, 2017), they are more disadvantaged than men in terms of education and employment histories (Kruttschnitt and Gartner, 2003) and more likely to be excluded from and within the labor market due to gender inequalities (England, 2005; Kalleberg, 2007). As primary breadwinners in single-parent households, informal and self-employment are ways to balance family and work-life (Heilman and Chen, 2003) and avoid discrimination associated with a criminal record (Finlay et al., 2021). The barriers perceived and experienced in the labor market may pull some women into the drug trade business–a highly profitable and flexible income-generating activity available for low-income women with household responsibilities (Salisbury et al., 2018), while pushing others into abusive and economically dependent relationships (Leverentz, 2014), reducing their chances of a successful reentry (Salisbury et al., 2009). These decisions and their consequences not only affect their own well-being but can also reproduce intergenerational disadvantages, given the impact of economic precariousness and domestic violence on the development of their children (Aizer and Currie, 2014; Thornberry et al., 2001).

In this paper, we argue that distinguishing between types of jobs and accounting for crime is crucial when analyzing employment patterns after incarceration, as it provides a more accurate description of the labor market available for those returning from prison, and a better understanding of whether and when *work* can be described as a turning point in the process of desistance from crime (Laub and Sampson, 2003). We advance previous research in two ways. First, we leverage a novel and rich longitudinal dataset – the *Reintegration, Desistance, and Recidivism Among Female Inmates in Chile Study* (RDFC) – that allows us to distinguish between different types of jobs (i.e., self-employed/employed, under-the-table/legitimate). By doing so, we are able to distinguish patterns absent from previous reentry research and characterize the type of jobs formerly incarcerated women have access to. As each type of job provides different daily routines and stability, they may have a different impact on integration and re-offending. By using a sample of women from Chile, we explore the patterns in a new and understudied context (Latin America), characterized by a recent increase in the number of women incarcerated (Walmsley, 2017) and a labor market where unskilled workers mostly have access to informal or illegal jobs opportunities (Bergman and Fondevila, 2021). Second, we examine how employment trajectories change when offending is included and assess whether there is an overlap between employment and crime. Given the reinforcing relationship between employment and crime, studying the joint development is a critical step to better understand the relationship between different types of income-generating activities (Nguyen and Loughran, 2018).

Overall, our results provide new evidence about the dynamics of post-prison work-crime trajectories among women, underlining the heterogeneity of job access and the importance of accounting for offending to understand unemployment patterns in this population. We observe a surprisingly high level of stability within each job type, which suggests a combination of the push and pull mechanisms that could explain access to specific jobs. Further research will be needed to explore *why* the patterns we found are showing up, how barriers are experienced and perceived, and the decisions made to work around those barriers. However, we offer tentative ideas and research questions to extend current theories on the connection between employment and crime among the formerly-incarcerated population.

1.1. Female employment after prison

Employment has largely been analyzed as a turning point toward conforming behavior (Apel and Horney, 2017; Bersani and Doherty, 2018), particularly when it couples with job stability and provides changes in routine activities and opportunities to develop a new prosocial identity (Laub and Sampson, 2003). However, this picture of employment contrasts profoundly with what formerly incarcerated people face upon release. When searching for a job, they experience several barriers and difficulties tied to their deficits in human and social capital (e.g., low education, limited employment experience, network ties) (Bushway and Apel, 2012; Western and Sirois, 2019) and the stigma associated with having a criminal record (Pager, 2003; Wakefield and Uggen, 2010). These barriers translate into low employment rates among the returning population (Harding et al., 2019; Western et al., 2015) and a push toward jobs that are on the margins of the labor market (Crutchfield, 2014).

While most of those returning from prison access precarious jobs, research suggests that barriers to employment might be higher for women (Cobbina, 2010). First, incarcerated women have lower education and more significant gaps in their employment histories (Kruttschnitt and Gartner, 2003; Morash et al., 1998). Under a male model of corrections (Van Voorhis, 2012), they have less access to training and education while in prison (Kruttschnitt, 2016). Upon release, programs and services that incorporate women's needs, such as childcare, are also absent (Kruttschnitt, 2010; Van Voorhis, 2012). Second, it is harder for women to find a job because they frequently have to care for others (Leverentz, 2014). The traditional gender norms associated with a male-breadwinner and female-caregiver model (Staab, 2012) translate into women expected to be primary caretakers to be perceived as "good mothers" (Couvrette et al., 2016). This cultural expectation, combined with the fact that a large percentage of incarcerated women are single mothers (Kruttschnitt, 2010), might lead to more heterogeneity in their employment trajectories compared to formerly-incarcerated

men, as they rely on different types of jobs to balance their competing roles. Lastly, women face gender inequalities that exist regardless of criminal records. Compared with men, women are more likely to earn less in comparable positions and to work in low-paid and precarious jobs (Kalleberg, 2007). These inequalities reflect the higher likelihood of women entering traditionally female occupations (i.e., service work) (Damaske and Frech, 2016), which have been historically devalued given the cultural biases associated with gender and work (England, 2005). As England suggests, this devaluation seems larger for minorities (England, 2005), and it is likely to be so for women with a criminal record.

Consistently with these additional barriers, employment rates among returning women are lower than those of returning men. La Vigne (2009), for instance, shows that the rate of employment among returning men increases from 48% to 60% over the first nine months outside, while the proportion of women working remains stable at around 35%. Western et al. (2015) find similar differences: The likelihood of being employed is higher for men than for women in the second month after release (46% and 27%, respectively), and it only improves among men (to 57%). These barriers may also push formerly-incarcerated women into the informal market as they anticipate low job prospects in the formal economy (Damaske and Frech, 2016). Finlay et al. (2021), for instance, find that women with criminal records are particularly likely to rely on self-employment, probably as a response to discrimination in the formal labor market. Women are also slightly overrepresented in the no-employment and slow-starter groups reported by Harding et al. (2019), which could be due to a higher likelihood of women being employed in under-the-table jobs not observed in the data. These findings are consistent with qualitative studies documenting how the initial hope placed on work as a critical element to *make it* is undermined by frustration and discouragement as women access low-pay, under-the-table, and unstable jobs (Leverentz, 2014; Opsal, 2012).

While research using entirely male or mostly male samples has recently expanded to describe jobs trajectories after release (Harding et al., 2019; Sugie, 2018; Western and Sirois, 2019), no extensive description of the labor market women face upon released has been provided. We think new insights can be obtained by using an entirely female sample when examining job patterns after release. As women experience additional challenges in gaining access to formal and high-quality jobs, their employment patterns at release may very well differ from those reported among men. Moreover, their primary role as breadwinners and childcare providers may increase the pressure to access precarious and informal jobs while also deepening the existing disadvantages into the next generation. Given the increase in the informal economy observed in the last decades and the reliance on self-employment by women and minorities (Finlay et al., 2021; Nguyen et al., 2020), it seems essential to go beyond the dichotomy of working/not working and distinguish the type of jobs when exploring the job trajectories of women after release.

1.2. Work and crime

Accounting for offending will improve our understanding of employment patterns at reentry. Until recently, criminologists have tended to analyze crime and legal work as mutually exclusive behaviors (Fagan and Freeman, 1999). However, research suggests that some offenders *double up* by pursuing both legal work and crime (Crutchfield, 2014; Fagan and Freeman, 1999; Hagedorn, 1994; Loughran et al., 2017). As Fagan and Freeman (1999) point out, "rather than dichotomous choice, economic activity for some people seems to vary over a continuum of legal and illegal" (p. 229). The ubiquitous movement between illegal and legal labor markets (Loughran et al., 2017) may explain some of the instability observed in employment at reentry as individuals search for additional ways to "make ends meet" (Sugie, 2018). Still, previous research on employment patterns after prison has largely overlooked crime as another income-generating activity.

Moreover, in line with Crutchfield's stratification hypothesis (Crutchfield, 2014; Crutchfield and Pitchford, 1997), the types of jobs formerly incarcerated individuals have access to – less stable and poorly paid – do not offer the commitment and bonds to society associated with better long-term outcomes, such as desistance from crime (Apel and Horney, 2017; Laub and Sampson, 2003). Therefore, the relationship between offending and employment might differ by the types of jobs available within the labor market. For instance, in a recent study using a young and mostly male sample, Nguyen et al. (2020) find no effect of formal or informal job in instrumental crimes, but a positive association between informal jobs and expressive offending.[1] If formerly-incarcerated women access mostly informal and self-employed jobs, and if those on the margins of the labor market are more likely to *double up* (Crutchfield, 2014; Fagan and Freeman, 1999), we should observe a significant overlap between work and crime among women returning from prison.

1.3. Context of the study: Chile

The experience of reentry largely depends on the context to which individuals are returning. Harding et al. (2019) point out that a successful reintegration is a function of the resources brought by those going back and the context of reception. Thus, understanding the particularities of the job market and the scope and characteristics of the criminal justice system in Chile is critical to interpreting our findings.

In Chile, female incarceration represents less than 10% of the overall prison population. Still, it has experienced an increase in the last decades more significant than the growth observed among males (Bergman and Fondevila, 2021; Walmsley, 2017). Nearly 50% of all women in prison are sentenced for drug offenses, and approximately 38% for non-violent property crimes (Morales et al., 2016).

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[1] There is a large body of research that analyzes the effect of employment on recidivism, with mainly mixed findings in the case of formerly-incarcerated women (Rodermond et al., 2016; Uggen and Kruttschnitt, 1998). However, most of this research does not account for different job types.

Similar to other countries in Latin America, women in Chile are mostly incarcerated for "crimes for profit" (Bergman and Fondevila, 2021). These women come primarily from disadvantaged communities, and they are older, less educated, and more likely to have children than men (Morales et al., 2016). In most cases, women were single custodial parents prior to incarceration, with less than 20% of their children staying with their biological father during the prison term (Valenzuela et al., 2012).

In terms of the labor market, the limited access to formal employment is particularly noticeable in a context in which informality prevails (Tornarolli et al., 2014). While informality represents 18% of all employments in developed countries, it extends to 70% in developing and emerging economies (OECD & ILO, 2019). In the case of Chile, gender gaps in employment rates and labor conditions have persisted despite the increased participation of women in the labor market in the last decades (Gasparini and Marchionni, 2015). For instance, while female participation rose from 33% in 1990 to 47% in 2015, male participation remained above 70% (International Labour Organization, 2018). Several studies document an informal rate of about 40% for female workers, slightly higher than for male workers (Berniell et al., 2021; Selame, 2004). This percentage contrasts with the reality in the United States, where informal employment represents only 20% of the total jobs, with a marginally larger proportion share among males (International Labour Organization, 2018). Similarly to the United States, self-employment represents around 20% of the total employment, with a larger proportion for women (Finlay et al., 2021; Ruiz et al., 2019; Tornarolli et al., 2014).

Gender gaps in participation and informality are particularly salient among people with lower education. In 2017, less than 30% of women in Chile without a high school diploma were working, in contrast to 48% of those with a high school diploma and over 70% of those with higher education (Hermann and Jauregui, 2019). In the same line, low-educated women and those heads' of household predominate among nonprofessional self-employment workers, lacking the social protection associated with formal jobs (Madero-Cabib et al., 2019; Ruiz et al., 2019). Having children also shapes employment trajectories in the Chilean context (Berniell et al., 2021; Madero-Cabib and Cabello-Hutt, 2022). The prevailing traditional gender norms associated with the idea of males as breadwinners and females as home caregivers (Staab, 2012) anchor in a cultural context where the idea of femininity has been strongly identified with motherhood (Droppelmann, 2021), pushing women into unemployment and informality. As Berniell et al. (2021) show, the gender gap observed in the informal economy in Chile is partially explained by women who reduce their participation in the formal economy after their first child. That effect persists over time and concentrates among those with less education.

Almost 90% of women released from prison in Chile are mothers, and only 30% have a high school diploma (Larroulet et al., 2021). Thus, they face a labor market in which opportunities are constrained in terms of the type of jobs available to them. While the size of the informal sector could increase the chances of working, formal employment may be hard to find and mostly restricted to those who are "better off" in terms of education and skills.

By studying a sample from Chile, we explore an understudied context where incarceration has recently increased and labor informality is high. We identify the most common patterns of employment among women released from prison, distinguishing between self-employed, employed, under-the-table, and legitimate jobs, and explore the interaction between employment types and offending (i.e., income-generating crimes). To provide possible explanations to the patterns found, we examine how indicators of "employability" (i.e., work experience, education) and barriers associated with criminal history, health problems, and caregiver responsibilities relate to job-crime trajectories after release.

2. Data and methods

2.1. Data

We used data from the RDFC, an intensive longitudinal study that followed a cohort of 225 women released from prison in Santiago, Chile, between September 2016 and March 2017.[2] The target population of the RDFC was Chilean women who served custodial sentences of at least 30 days and were released on parole or after completing their entire sentence. About 80% of those released under these conditions participated in the study.[3] The study included five interviews over a year. The first one was conducted about two weeks before prison release. The follow-up interviews were scheduled on the first week and then at 2, 6, and 12 months after release. At each interview, a face-to-face questionnaire was applied, consisting of primarily closed-ended survey questions covering employment, housing, relationships, and offending.[4] The application lasted between 1 and 2 hours and was conducted by trained interviewers.[5] The current paper only includes information collected at the baseline and monthly interviews.[6] The analysis was restricted to women who

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[2] The RDFC data have been described in Larroulet et al. (2021). A larger description the sample at release could be found in Larroulet et al., 2020.

[3] Among the women who fulfilled those conditions, 11% were not contacted in time for the pre-release interview, and 8% refused to participate. Women participating in the study were slightly more likely to be released under parole and had a higher number of prior sentences. They were less likely to be incarcerated for theft and had a lower number of reported children. See Daza and Larroulet (2019) for an extended analysis. We ran the analysis adjusting for sample weights and the results were almost identical. Therefore, we use the unweighted sample for the following analyses.

[4] The questionnaires also include the use of life event calendars to capture within-waves information in some key life domains (Roberts and Horney, 2010).

[5] The questionnaires were developed by the principal investigators, based on three well-known studies conducted in the United States: Boston Reentry Study (Western et al., 2015), Returning Home Study (Visher et al., 2004), and Women's Experience of Violence's Study (Simpson et al., 2016). We thank their principal investigators for sharing the studies' instruments.

[6] We excluded the first-week interview because the questionnaire did not include questions comparable to those in the monthly questionnaires.

participated in at least one follow-up interview (N = 207).[7]

2.2. Measures

2.2.1. Employment

We used a life event calendar to measure participants' employment status by month (Glasner and van der Vaart, 2009; Roberts and Horney, 2010). Women described their jobs by specifying their schedule and contractual conditions, which allowed us to group jobs based on whether the women were employed (i.e., receiving payment/salary from someone) or self-employed in legitimate (on the books or providing social security benefits) or under-the-table jobs. Thus, we defined four job categories: (1) self-employed under-the-table, (2) self-employed legitimate, (3) employed underthe-table, and (4) employed legitimate. Most of the women reported working in *self-employed under-the-table* jobs (21%) in the 12 months after release.[8] These jobs include activities such as selling on the street, open fairs, or parking lots. In contrast, only 2% declared working on *selfemployed legitimate* jobs (e.g., selling products at home, driving a taxi, hairdressing, or tailoring). *Employed under-the-table* jobs such as babysitting, housekeeping, and temporary fruit collection represents about 10% of the jobs. The main distinction between these jobs and self-employed under-the-table jobs is that the latter does not imply being in a subordinate relationship to another person. However, both could be defined as *informal* jobs.[9] Finally, *employed legitimate* positions, such as those held by cleaners and construction, fast-food, retail, or supermarket workers, account for 9%. Although about 26% of women reported more than one job in at least one month during the follow-up, we selected formal and dependent jobs as the primary ones.[10]

2.3. Offending

Offending was also reported in each interview using monthly calendars and a list of 22 offenses such as theft, burglary, auto theft, robbery, assault, drug dealing, and fraud. We create a binary variable indicating if any crime was committed in a given month. In our analysis, we exclude non-income-generating crimes such as homicide, assaults, and domestic violence.[11]

2.3.1. Covariates

We analyze whether the trajectories of employment and crime differ by a number of demographic and individual covariates measured during the baseline interview and that have been associated with higher chances of employment (Bushway and Apel, 2012) or with additional barriers experienced in the process of reentry (Western, 2018), including some barriers more specifically related to gender (Salisbury and Van Voorhis, 2009). Covariates include age, education attainment (having a high-school diploma), previous working experience (worked 6 months prior to the current incarceration term), expected hardness of finding job after release, number of children and having a minor child, prior incarceration and number of previous sentences, sentence length in months, early onset in offending (first offense before age 15), and dependence/abuse of drugs.[12] We also include two covariates measured during the follow-up interviews to account for selection into the job market: any search for a job and any time in prison 12 months after release.[13]

2.4. Analytic strategy

We used sequence analysis to examine employment and crime trajectories 12 months after release. Sequence analysis is a descriptive approach that studies entire pattern of events over time and focuses on the ordering of different states (Sugie, 2018).[14] First, we examined employment trajectories and performed cluster analysis to aggregate similar patterns into distinctive groups.[15] To define the optimal number of clusters, we looked at three quality measures: Average Silhouette Width (ASW), Hubert's Gamma (HG), and Point Biserial Correlation (PBC).[16] We extended this analysis by including employment and offending as co-existing activities and

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[7] Eighteen women dropped out after the baseline and first-week interviews. These women were younger (average age of 30 versus 37 years compared with those who remained in the study) and marginally less likely to be previously incarcerated.

[8] Twenty-one percent represents the average proportion of time spent working in a position self-employed underthe-table 12 months after release.

[9] Following the International Labor Organization (ILO) definition, we considered as *informal work* both self-employment and employed activities that were not recognized, regulated, or protected by laws or regulations of the country and as *formal work* any job that guarantees those protections (Trebilcock, 2005).

[10] On average, only 4.5% of the women reported more than one job each month.

[11] Only 3% of women (6) reported violent crimes 12 months after release.

[12] Measured using the Mini-International Neuropsychiatric Interview (MINI) constructed to evaluate abuse or dependency of drug based on the DSM-IV (Sheehan et al., 1998).

[13] Following the suggestion of one reviewer and in line with the literature on gender pathways into crime (Daly, 1992; Salisbury et al., 2018), we conduct additional analyses including an indicator of having a romantic partner and have ever experienced intimate partner violence. We did not find any statistically significant difference among the employment and crime trajectories. The results are available upon request.

[14] For details on sequence analysis see Gabadinho et al. (2011); Mills (2011).

[15] We used the K-Medoids algorithm to define clusters based on Hamming distance of sequences. We also tried different distance metrics to assess how stable were our cluster solution.

[16] Higher values in those quality measures indicate a better cluster solution (i.e., clusters are homogeneous and clearly separated from each other). For more details see Gabadinho et al. (2011).

by using cluster analysis to identify distinctive employment-crime trajectories. We characterized the clusters using descriptive tables, discrepancy analysis, and regression tree models with demographic and individual covariates measured during the baseline interview. We accounted for the uncertainty of our estimates using bootstrapped confidence intervals. Missing data in the sequences were imputed using Probabilistic Suffix Trees (Gabadinho and Ritschard, 2016). Overall, 13 sequences (respondents) contain missing values, and 55 states were missing. The code of our analysis is available in https://github.com/sdaza/reentry-work-lifecourse.

3. Results

3.1. Employment

Overall, 67% of the women reported working at some point during the first 12 months following release, with an average of 5 months of working. Fig. 1A shows the proportion of four job categories over time: (1) self-employed under-the-table, (2) self-employed legitimate, (3) employed under-the-table, and (4) employed legitimate. As the percentage of women who reported no jobs decreases from 70% to 57%, the proportion of women reporting jobs increases over time, a pattern that is consistent with previous research (La Vigne, 2009; Visher et al., 2004; Western et al., 2015).[17] The most common job category is self-employed under-the-table – about 20% over the follow-up period. Employed positions, in turn, range from 3% to 8%, while under-the-table jobs going from 5% to 10%. Self-employed legitimate jobs are rare, with proportions ranging from 1% to 2%. Most of the increase in working women over time is due to employed jobs, either legitimate or under-the-table. In contrast, the proportion of women in self-employed jobs is surprisingly stable. Given the low prevalence of legitimate self-employed jobs, we combined legitimate selfemployed with legitimate employed jobs in the subsequent analyses. Thus, all formal jobs remain in the same group.

Table 1 reports the transition rates between job categories,[18] each row adds up to 1.0 within the rounding error. The rates reveal high levels of stability across states. Between any two consecutive months, most of the women remain in the same type of job, and movements across different job categories are rare, not going higher than 5% (e.g., from employed under-the-table to self-employed). The most frequent transition is from having a job to having none.

4. Employment trajectories after release from prison

While Fig. 1A describes the aggregate employment patterns in the sample, it masks important individual heterogeneity (see Fig. 1B). We used cluster analysis to explore patterns and identify different typologies of employment trajectories of the women in our sample. Based on ASW criteria, the best solution for grouping employment trajectories consists of four clusters (see Table S1 in the *Supplemental Material*).

Fig. 2A shows the distribution and patterns of jobs by month in four clusters, while Fig. 2B depicts individual sequences. About 59% of the women in the sample belong to a cluster in which the most likely state is *unemployed*: over 80% of women were unemployed in any month during the follow-up, and, on average, they spent 10 out of 12 months without a job (see Table 2A).[19] As in any cluster analysis, variability exists within clusters. While unemployment is the most likely job status, some women do work at some point, although in sporadic and short-term jobs. On average, women in this cluster worked about 2 months. Table 2B shows these women have the least working experience, the most severe problems with drugs, and the most extensive criminal history (as reflected by the number of previous sentences and early onset). They also have the highest probability of being in prison during the follow-up period. Moreover, before being released, they expected to have a hard time finding a job, and less than half of them search for a job during reentry. Although this group shows a higher involvement in crime prior to incarceration and during the first months outside, it would be misleading to associate it exclusively with offending due to individual heterogeneity, as we discuss later.

The second largest group (21%) is predominantly *self-employed*. Despite the stability of self-employment observed in Fig. 1A, there is heterogeneity within the cluster. Only 20% of women in this cluster remained in a self-employed job during the entire follow-up. It is interesting to note though that, compared with the other working clusters (Fig. 2A), self-employment emerges as an alternative relatively quicker upon release, representing 59% of the women during the first month, and increasing up to 86% at the end of the follow-up. This early involvement in self-employed activities may be a consequence of the weaker barriers associated with those jobs. On average, women in this cluster spent about 2 months unemployed–ranging from 41% at the beginning and 5% at month 12, and 8 months in self-employed positions (Table 2A). Other types of jobs were much less common, confirming the limited movement between job categories. Table 2B shows that these women are older (41 years), have more work experience and less concern about finding a job, and have a later onset of offending compared with the unemployed cluster. Still, the number of previous sentences is higher than the

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[17] Women might not work due to post-release imprisonment. According to our data, 26% of the women were in prison at least one month after release. The imprisonment rate by month goes from 4% during the first month to 6% by the end of the follow-up period. On average, women spent 0.7 months in prison. We do not exclude these respondents in our analysis as the proportion of women in prison by month is relatively small, but we report the percentage of incarcerated women within each cluster.

[18] Transition rates are the probability of switching at any position from state s_i to state s_j. Thus, if $n_t(s_i)$ is the number of sequences with state s_i at position t, and $n_{t,t+1}(s_i,s_j)$, the number of sequences with state s_i at position t and state s_j at position $t+1$, the transition rate $p(s_j|s_i)$ between states s_i and s_j would be $\frac{\sum_{t=1}^{L-1} n_{t,t+1}(s_i,s_j)}{\sum_{t=1}^{L-1} n_t(s_i)}$, where L is the maximum observed length (Gabadinho et al., 2011).

[19] Each column within Panel A adds up to 12 month within rounding error, which corresponds to the total period of observation.
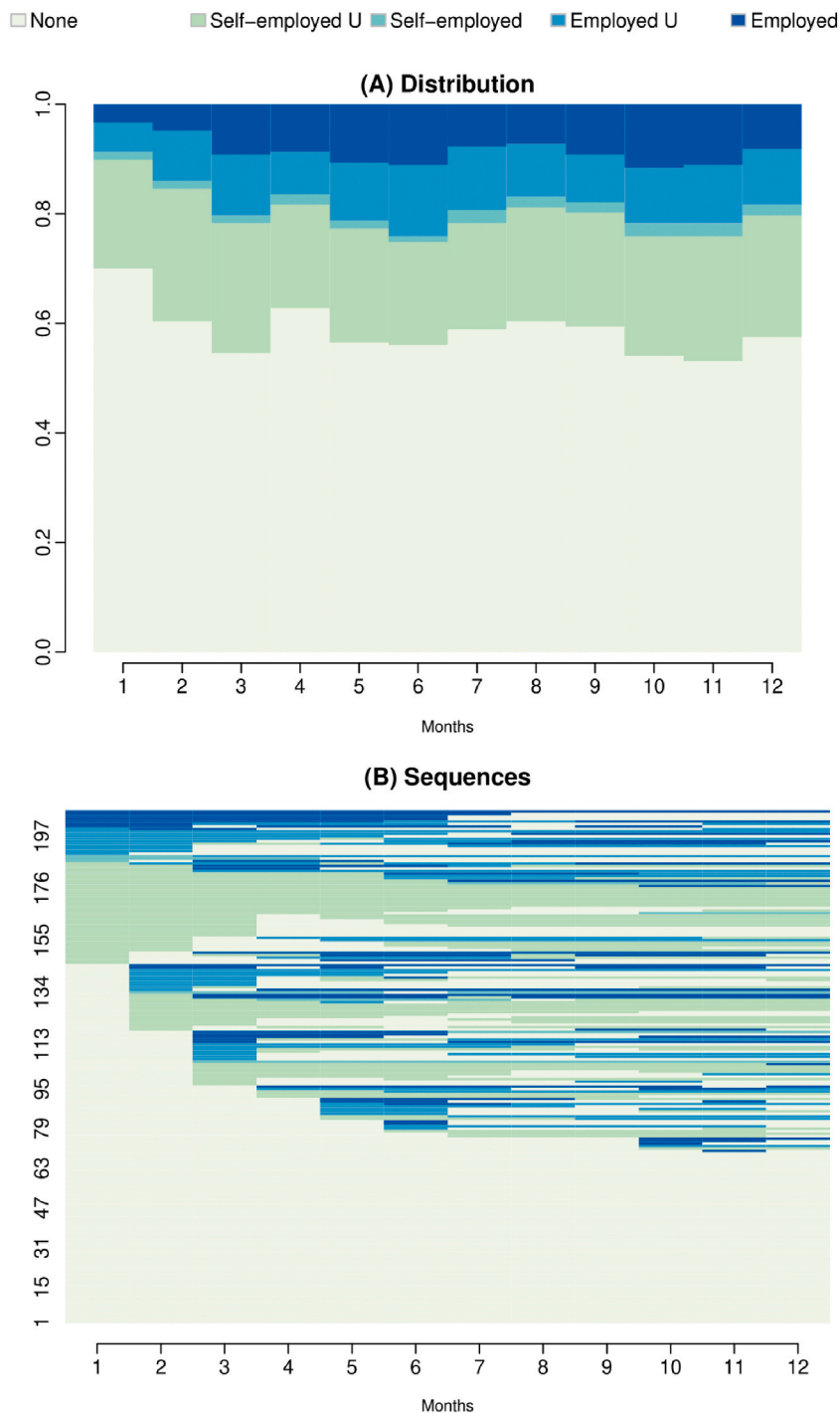
Fig. 1. Distribution (A) and sequences (B) of job categories by month of women during the first 12 months following their release (N = 207) U = Under-the-table.

other working clusters. The proportion of job searchers is low (39%) compared to any other cluster, suggesting a potential *preference* for independent jobs, although the estimates are too noisy to reach firm conclusions.

The two remaining clusters are relatively smaller. The *under-the-table* cluster represents 11% of the sample. Within this cluster, under-the-table jobs increase from 14% to 77% during the follow-up period (Fig. 2A). The most common trajectory that ends up in under-the-table jobs comes from unemployment. Although this group is relatively similar to the self-employed cluster in terms of age and education, women differ in their work experience and the proportion reporting having searched for a job after release. In terms of

Table 1

Transition rates between job categories of women inmates during the first 12 months following their release (N = 207 × 12).

	None	Self-employed	Under-the-table	Formal
None	0.90 (0.88, 0.92)	0.05 (0.03, 0.06)	0.03 (0.02, 0.04)	0.03 (0.02, 0.04)
Self-employed	0.10 (0.07, 0.12)	0.85 (0.81, 0.88)	0.03 (0.01, 0.05)	0.03 (0.01, 0.04)
Under-the-table	0.13 (0.09, 0.17)	0.05 (0.02, 0.08)	0.80 (0.73, 0.85)	0.03 (0.01, 0.05)
Formal	0.13 (0.08, 0.19)	0.03 (0.01, 0.05)	0.03 (0.01, 0.05)	0.81 (0.75, 0.86)

Probability to switch at a given position from state s_i to state s_j.

95% bootstrapped confidence intervals in parenthesis (1000 samples).

offending, they were released after finishing a longer sentence and report in higher proportion having problems with drug use. However, the sample size precludes reaching systematic conclusions about these differences.

The final cluster–*formal* (9% of the sample)–also shows an increase of formal jobs from 16% to 79% over the follow-up period. As expected, the most likely state is formal employment (8 months on average). However, unlike what we observed in the self-employed cluster, only 5% of women reported having formal jobs during the entire follow-up period (Fig. 2B). This suggests that women do not immediately obtain a formal job after release, and more time is needed to obtain such positions. Demographically, the formal cluster differs from the others; these women are younger than other working clusters, more educated, less criminally involved, and more experienced and willing to find a job as reflected in their search (84%).

4.1. Employment and offending

Without considering criminal activity after release, employment trajectories might mask significant variation in the paths women follow during their reentry process. For this reason, we explored patterns of employment after accounting for offending as another possible income-generating activity or *type of job*. To simplify our analysis, we combined all informal jobs into one category: the self-employment category was merged with employed under-the-table to designate informal jobs.

Fig. 3 displays the distribution and individual patterns of jobs (formal and informal) and offending over 12 months. The most frequent states overall are unemployed (35%), informal jobs (27%), and crime (23%). While the proportion of unemployed women decreases (from 44% to 35%), crime remains relatively stable around 22% and informal work goes up from 22% to 30%. The proportion of women offending and working each month is small (less than 5%), although women who reported offending and working at *any time* during the follow-up period accounted for 21% of the respondents, with 80% of these women involved in informal jobs and offending. This finding suggests that, although *doubling up* in work and offending is as prevalent in our sample as in prior studies, when analyzed within each month, it is sporadic and not a predominant pattern within the employment trajectories.[20] And, while doubling up is more likely to include informal employment, the differences are not striking.

Including illegal activity in the definition of sequences splits the early unemployed category (see Fig. 1A) into unemployed and offenders (Fig. 3A). These results show that accounting for offending provides a better characterization of women who are not working, preventing researchers from incorrectly associating this group with either criminal activity or a lack of any income.

Table 3 displays transitions between unemployment, working, and offending. Most states are stable and transitions to crime alone are infrequent. For example, the probability of moving from unemployment/no-offending to offending is only 5%, while the probability of getting a job is 14%. There is also no transition from only working to offending, and only 3% move from working to having a job and offending. However, among the few women who both work and offend, the most likely transition is into crime, and only 11% move to only work. Thus, while working reduces the chances of moving back into crime, consistent with most desistance literature, the overlap between work and crime goes in the opposite direction, implying that women who are both working and offending are more likely to move toward offending rather than conformity.[21]

4.2. Employment and crime trajectories after release from prison

As for the employment trajectories, we selected four clusters based on ASW (see Table S4 in the Supplemental Material). *Unemployed* remains the largest cluster (36% of the sample, see Fig. 4A). On average, women in this group spent almost 9 months without a job (Table 4A). Unemployment increased from 68% to 77% by the end of the follow-up (Fig. 4), which could be partially explained by incarceration. 16% of this group was unemployed during the 12 months, 39% worked at some point in time, and 41% got involved in offending. This finding suggests that the cluster is very heterogeneous. It seems to mix women opting out of the labor market after trying, women who have never looked for a job during the follow-up, women who only have access to sporadic and short-term positions, and women incapacitated to participate in the labor market due to incarceration. Table 4B also shows that these women are relatively young (37 years) and not well educated but have some work experience. They have 2.8 previous sentences on average, with

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[20] Loughran et al. (2017), for instance, report that the percentage of individuals involved in both work and crime within a year goes from 20% to 30% for ages between 18 and 24. Their study is based on a mostly male, high-risk sample from the United States.

[21] The patterns are similar when we distinguish between informal and formal employment, with the only difference being that the chances of transition from an informal-crime state to informal only are larger than the transition rates in the case of formal employments. See Table S3 in the Supplemental Material.
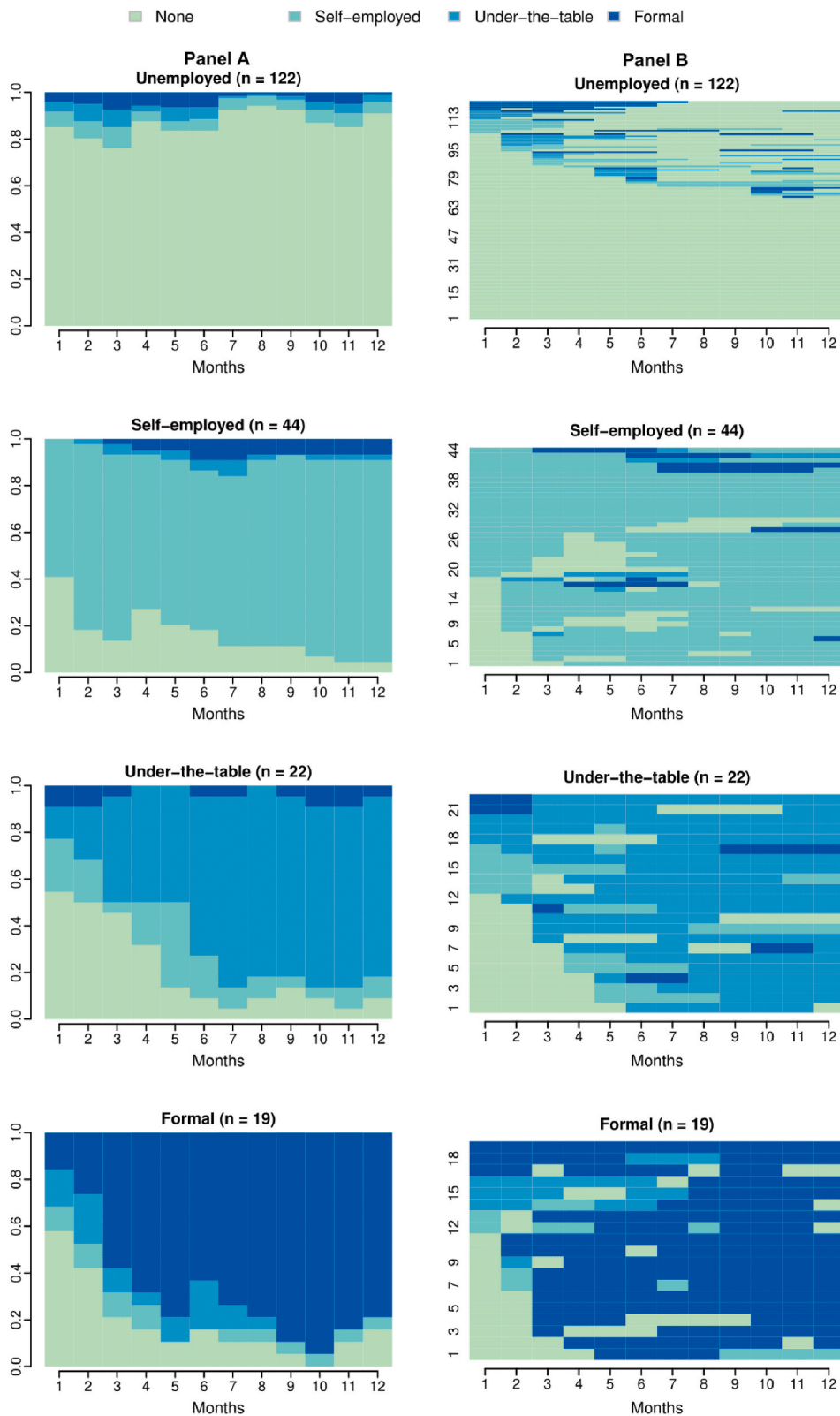
Fig. 2. Distribution (Panel A) and sequences (Panel B) of job categories of women during the first 12 months following their release by four employment clusters.

Table 2
Covariates by job cluster.

		Cluster			
	Total	Unemployed	Self-employed	Under-the-table	Formal
	(N = 207)	(N = 122)	(N = 44)	(N = 22)	(N = 19)
Panel A: Time spent on job (months)					
None	7.01 (6.39, 7.64)	10.39 (10.03, 10.75)	1.88 (1.36, 2.36)	2.52 (1.64, 3.41)	2.17 (1.47, 2.89)
Self-employed	2.56 (2.06, 3.07)	0.66 (0.43, 0.93)	9.14 (8.52, 9.80)	1.65 (0.95, 2.41)	0.75 (0.21, 1.37)
Under-the-table	1.20 (0.85, 1.56)	0.46 (0.28, 0.66)	0.34 (0.11, 0.61)	7.24 (6.36, 8.23)	0.97 (0.21, 1.84)
Formal	1.23 (0.88, 1.63)	0.49 (0.27, 0.75)	0.64 (0.23, 1.14)	0.58 (0.18, 1.09)	8.11 (7.10, 9.11)
Panel B: Covariates (average)[a]					
Age[a]	36.7 (35.3, 38.3)	34.2 (32.4, 36.2)	41.1 (38.3, 44.3)	42.0 (37.6, 46.5)	35.9 (30.9, 41.5)
High school[a]	0.30 (0.24, 0.36)	0.23 (0.16, 0.30)	0.34 (0.20, 0.48)	0.32 (0.14, 0.55)	0.63 (0.42, 0.84)
Children under 18	0.71 (0.64, 0.77)	0.73 (0.65, 0.80)	0.66 (0.52, 0.80)	0.59 (0.36, 0.77)	0.79 (0.58, 0.95)
Num. Of children	2.55 (2.29, 2.82)	2.34 (2.05, 2.66)	3.05 (2.50, 3.66)	2.82 (1.95, 3.86)	2.37 (1.68, 3.00)
Dependence/drug abuse[a]	0.39 (0.33, 0.46)	0.52 (0.43, 0.61)	0.18 (0.07, 0.30)	0.32 (0.14, 0.50)	0.16 (0.00, 0.32)
Crime before age 15[a]	0.49 (0.42, 0.55)	0.60 (0.50, 0.68)	0.28 (0.16, 0.44)	0.38 (0.19, 0.57)	0.37 (0.16, 0.58)
First time in prison[a]	0. (0.22, 0.34)	0.21 (0.14, 0.29)	0.30 (0.14, 0.44)	0.36 (0.18, 0.55)	0.53 (0.32, 0.74)
Num. Previous sentences[a]	4.03 (3.10, 5.09)	5.06 (3.79, 6.73)	3.09 (1.53, 5.58)	2.09 (0.95, 4.09)	1.00 (0.47, 1.58)
Sentence length[a]	2.19 (1.85, 2.59)	1.87 (1.45, 2.33)	1.97 (1.45, 2.48)	3.07 (1.78, 4.67)	3.72 (2.20, 5.32)
Worked before prison[a]	0.49 (0.43, 0.56)	0.33 (0.25, 0.41)	0.75 (0.61, 0.86)	0.59 (0.41, 0.82)	0.84 (0.68, 1.00)
Expected hardness of finding job[a]	0.69 (0.62, 0.75)	0.82 (0.75, 0.89)	0.46 (0.32, 0.61)	0.62 (0.38, 0.81)	0.50 (0.28, 0.72)
Searched jobs during follow-up[a]	0.49 (0.42, 0.56)	0.46 (0.36, 0.55)	0.39 (0.25, 0.52)	0.55 (0.32, 0.77)	0.84 (0.68, 1.00)
Prison during follow-up[a]	0.25 (0.20, 0.31)	0.39 (0.30, 0.48)	0.07 (0.00, 0.14)	0.05 (0.00, 0.14)	0.11 (0.00, 0.26)

[a] Statistically significant differences across clusters (p-value < 0.05). 95% bootstrapped confidence intervals in parenthesis (1000 samples).

39% being drug dependent. Almost sixty percent of them reported some job search during the follow-up, a percentage that is higher than the informal cluster.

The second cluster, *offending* (27%), brings together women involved almost exclusively in crime (around 71% over 12 months) and who reported only offending for about 9 months (Table 4A). Just few of them declared offending and working simultaneously, although this group concentrates most of the overlap in work and crime. On the other hand, unemployment increases from 10% to 17% (Fig. 4), likely due to incarceration and incapacitation effects. Consistent with their involvement in offending, this cluster is the youngest on average (31 years), has the largest number of previous sentences (8.7), and compared with other clusters, shows both an earlier onset in offending (78%) and higher drug-dependency (69%) (Table 4B). It also includes women with low education (only 11% have a high school diploma) and almost none work experience – two factors that research strongly relates to unemployment (Bushway and Apel, 2012). While 90% expected difficulties in finding a job, most of them seem to opt out from the labor market as only 26% report searching for jobs. Finally, the short but frequent incarceration terms observed in this cluster point to women who "churn" through the justice system, and that, while likely involved in less serious offenses, seem deeply embedded in a criminal lifestyle (Bergman and Fondevila, 2021; Lynch and Sabol, 2001).

The remaining clusters consist of women likely to be working, either in informal or formal jobs. The *informal* cluster (30%) is characterized by an increasing proportion of informal jobs (from 53% to 79% by the end of the follow-up, with an average of 8.7 months) and low criminal activity. Consistent with the self-employed and under-the-table clusters discussed in the previous section, women in the informal cluster are older (41 years) and moderately educated and have higher work experience compared to the prior two clusters. About 49% of them searched for a job during the follow-up, which contrasts with the 59% of unemployed women who reported looking for a job. As already stated, this percentage may indicate a preference for informal employment, although our estimates of differences between groups are imprecise. The *formal* cluster (7%) consists mostly of women with formal jobs (68% and 8.1 months on average), with a proportion increasing from 7% to 73% by the end of the follow-up, while unemployment decreases correspondingly from about 70% to 10%. Informal employment, criminal activity, and the combination of offending and working are scant (Table 4A). This group consists of women with a late onset and short criminal history (although the longest sentence), and higher work experience and education, which may relate to their higher likelihood of searching for jobs (80%). The informal and formal clusters are similar in their composition, except for differences in education attainment and active job search.

4.3. Robustness checks

The reliability of the association between clusters and covariates largely depends on how well groups are defined. For robustness, we explored the relationship between sequences and explanatory covariates without prior clustering, using multifactor discrepancy analysis and regression trees (Studer et al., 2011).[22] All the results are reported in the *Supplemental Material*.

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[22] Although cluster analysis serves for descriptive purposes and the identification of ideal types, it has some limitations when assessing associations with covariates (Studer et al., 2011; Warren et al., 2015). As clusters are just a simplification of observed sequences, a reliable assessment of covariates would only hold when groups are very homogeneous and clearly separated from each other (i.e., average silhouette width > 0.7). If these assumptions are not met, cluster analysis may hide or create artificial associations with covariates (Studer et al., 2010).
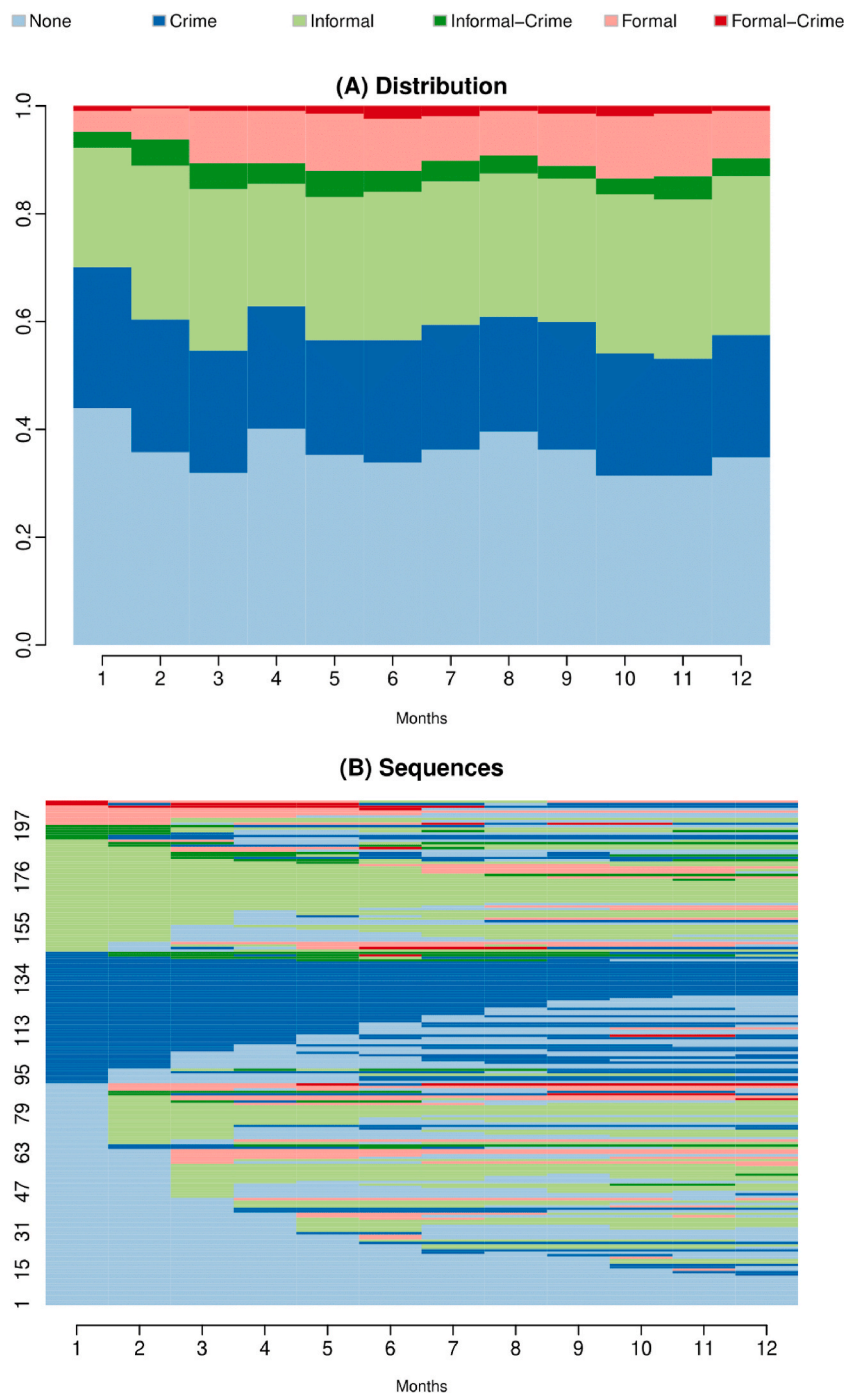
Fig. 3. Distribution (A) and sequences (B) of job categories and crime of women during the first 12 months following their release by four employment clusters.

Overall, the results of the discrepancy analysis suggest that our covariates explain about 16% of the discrepancies in employment and crime sequences. In both cases, the most relevant variable is work experience, followed by incarceration in the case of employment patterns and by the number of previous sentences when sequences include crime. Similarly, the regression trees suggest that work experience is a key factor distinguishing between trajectories in which unemployment is predominant and paths for which the probability of having a job is higher. In the employment and crime sequences, having a larger number of prior sentences distinguishes trajectories in which offending is more likely and those in which work or unemployment prevail. Among women with fewer sentences, those who had been previously incarcerated, reported a path for which offending and double-up are more likely. Finally, prior work

Table 3
Transition rates between having any job and crime of women inmates during the first 12 months following their release (N = 207 × 12).

	None	Crime	Job	Job-Crime
None	0.80 (0.77, 0.83)	0.05 (0.04, 0.07)	0.14 (0.11, 0.17)	0.00 (0.00, 0.01)
Crime	0.11 (0.09, 0.14)	0.86 (0.82, 0.89)	0.00 (0.00, 0.00)	0.03 (0.01, 0.04)
Job	0.09 (0.07, 0.11)	0.00 (0.00, 0.01)	0.87 (0.85, 0.90)	0.03 (0.02, 0.04)
Job-Crime	0.04 (0.01, 0.09)	0.21 (0.14, 0.29)	0.11 (0.06, 0.18)	0.64 (0.53, 0.73)

Probability to switch at a given position from state s_i to state s_j.
95% bootstrapped confidence intervals in parenthesis (1000 samples).

experience is a factor that distinguishes informal from formal employment. Overall, these results are consistent with our descriptive analysis and confirm the relevance of factors such as previous work experience and criminal involvement in explaining employment patterns among formerly-incarcerated women.

5. Discussion and conclusion

Women released from prison face the challenge of finding ways to make ends meet. The discrimination due to their criminal records is just one of the many barriers they experience when accessing better-quality jobs. For many of them, informal or illegal activities are the only or better options at hand. We analyze job-crime trajectories for women returning from prison using a new dataset that allow us to better describe the job market available for formerly incarcerated women and the interactions between legal, informal, and illegal jobs during reentry.

The first goal of this paper is to identify the most common patterns of employment among women following their release from prison. We move beyond the dichotomy employed/unemployed used by prior research (Harding et al., 2019; Sugie, 2018; Western and Sirois, 2019) and distinguish between self-employed, legitimate employed, and under-the-table jobs. We find that a large number of women who reported working were involved in self-employment, and more specifically, under-the-table self-employment jobs. This result is consistent with prior research noting that formerly incarcerated individuals usually have access to low-quality jobs that are at the margins of the labor market (Crutchfield, 2014; Nguyen et al., 2020). As Western (2018) argues, despite the focus on employment as an essential ingredient for reintegration and desistance from crime, "a poverty-level income in a minimum-wage job is often a best-case scenario for this population" (p. 84). However, as prior studies either do not distinguish between formal, informal, and self-employed jobs (e.g. Sugie, 2018; Western and Sirois, 2019) or rely on administrative records that omit under-the-table jobs (e.g., Harding et al., 2019), we cannot know whether the high prevalence of self-employed and under-the-table employment reflected in our data is comparable with studies conducted in other contexts. As already stated, the informal economy is a key source of employment in Latin America, and it provides access to precarious jobs particularly to women and urban youths (Tornarolli et al., 2014). Given the prevailing cultural norms that reinforce women's caregiver responsibilities (Staab, 2012), self-employment becomes an attractive option as it provides the needed flexibility for working while taking care of others (Ruiz et al., 2019). In the case of the women involved in the criminal justice system, though, informality and self-employment are likely to reflect a strategic decision to avoid the barriers to entry into the formal labor market, a phenomenon also suggested in previous research (e.g., Finlay et al., 2021, Nguyen et al., 2020, and Ramakers et al., 2017). It is possible that with the expansion of the informal economy in the United States, formerly incarcerated people become more likely to access self-employed and under-the-table jobs (Finlay et al., 2021; Nguyen et al., 2020). How much these changes will vary by gender remains to be seen. In any case, our descriptive results show that distinguishing between types of jobs provides a particular insight into the labor market available for women returning from prison, and it helps to better understand the dynamics of employment during the reentry process.

We observed a high level of stability across types of employment. Over 80% of the sample remained in the same job type between two consecutive months. Transitions from under-the-table jobs to better jobs –defined as those that provide benefits of some kind– were highly unlikely. Different factors may explain the high stability in these types of jobs associated with the particular structural and cultural constraints women experience in pursuing employment opportunities (England, 2005; Kruttschnitt, 2010; Madero-Cabib and Cabello-Hutt, 2022). Age and the need to take care of others may lead women to choose and seek self-employed or under-the-table jobs, perhaps owing to the flexibility they offer compared with employed positions (Heilman and Chen, 2003). As some qualitative studies report, incarcerated women tend to relate formal jobs with subordination and restriction of autonomy (Cardenas and Undurraga, 2014) and poor economic benefits due to their lack of labor prospects (Opsal, 2012). The pattern of stability in more precarious jobs can also result from existing barriers in the formal labor market, where the combination of gender and criminal records restricts access to *better* jobs (Van Voorhis, 2012). Our additional analyses indicate that only 24% of those working six months prior to incarceration, reported having a formal job upon release. Most of them transitioned to unemployment and self-employed jobs, maybe reflecting the restriction of opportunities associated with a new criminal record (see Table S2 in Supplemental Material).

Our results also show heterogeneity in employment patterns, even within a disadvantaged group of women returning from prison. Specifically, we identify four distinct clusters with different employment experiences, trajectories, and individual characteristics. Again, these groups barely mix job types, which suggests women may select into specific jobs. Some of the characteristics of the informal clusters (self-employed and under-the-table) relate to the hypothesis of preferences toward informality (i.e., older, higher number of children, low probability of job search), while others point to additional barriers tied to criminal records or low education.
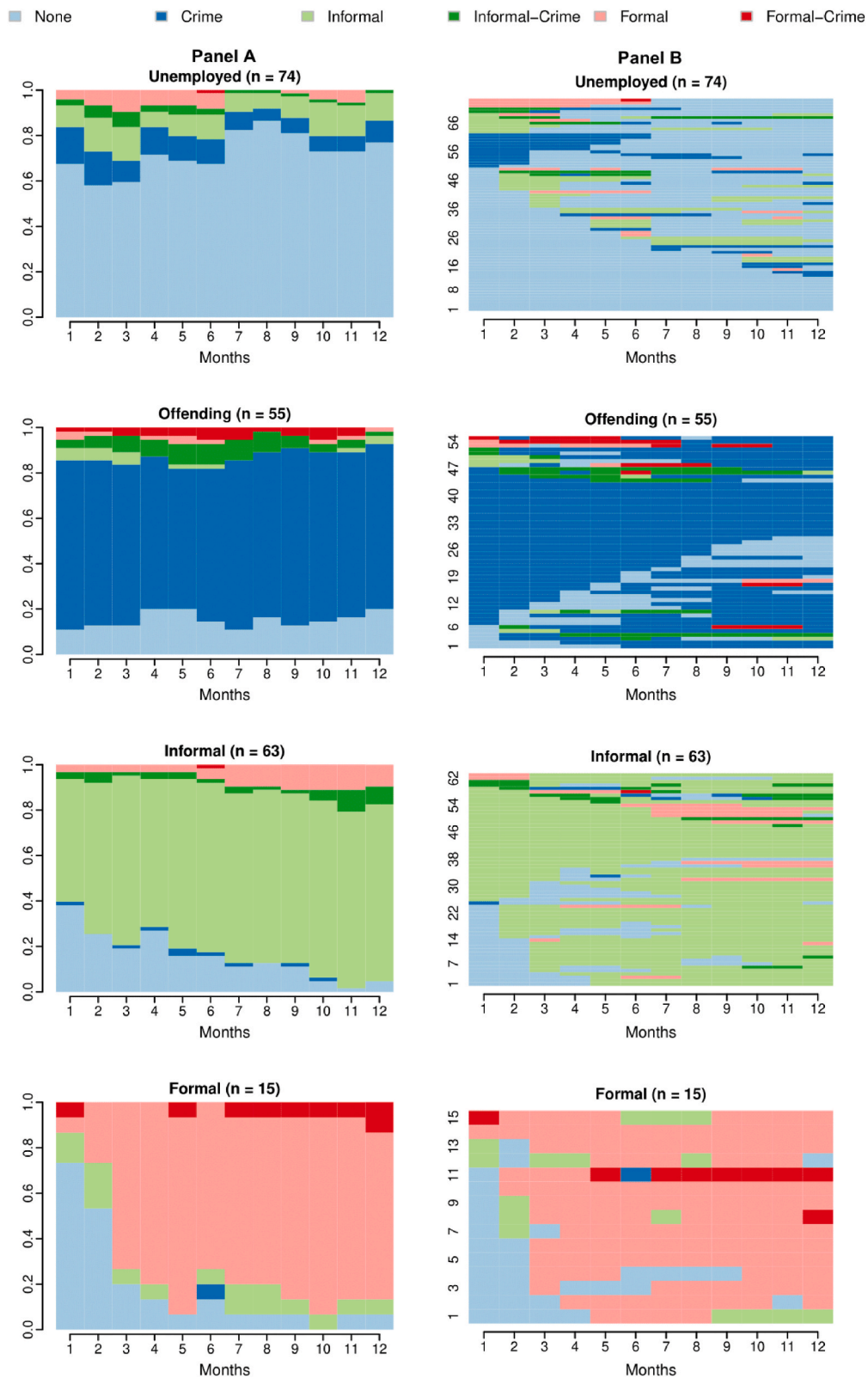
Fig. 4. Distribution (Panel A) and sequence (Panel B) of job categories and crime of women during the first 12 months following their release by four employment-crime clusters.

Table 4
Covariates by job-crime cluster.

	Total	Cluster			
		Unemployed	Offenders	Informal	Formal
	(N = 207)	(N = 74)	(N = 55)	(N = 63)	(N = 15)
Panel A: Time spent on job (months)rowhead					
None	4.31 (3.81, 4.83)	8.66 (8.16, 9.16)	1.82 (1.38, 2.29)	1.88 (1.48, 2.32)	2.17 (1.33, 3.13)
Crime	2.75 (2.24, 3.34)	1.18 (0.78, 1.59)	8.59 (7.84, 9.33)	0.14 (0.03, 0.30)	0.07 (0.00, 0.20)
Informal	3.24 (2.70, 3.79)	1.32 (0.91, 1.78)	0.25 (0.09, 0.44)	8.67 (8.11, 9.22)	1.06 (0.47, 1.80)
Informal-Crime	0.45 (0.27, 0.66)	0.33 (0.08, 0.65)	0.75 (0.27, 1.33)	0.46 (0.17, 0.79)	0.00 (0.00, 0.00)
Formal	1.08 (0.76, 1.43)	0.51 (0.23, 0.84)	0.18 (0.02, 0.42)	0.83 (0.48, 1.21)	8.10 (6.80, 9.33)
Formal-Crime	0.16 (0.06, 0.28)	0.01 (0.00, 0.04)	0.40 (0.13, 0.73)	0.02 (0.00, 0.05)	0.61 (0.00, 1.60)
Panel B: Covariates (average)[a]					
Age[a]	36.7 (35.2, 38.3)	36.5 (33.9, 39.1)	31.3 (29.2, 33.4)	41.4 (38.7, 44.2)	38.0 (32.3, 44.4)
High school[a]	0.30 (0.24, 0.36)	0.30 (0.20, 0.41)	0.11 (0.04, 0.20)	0.38 (0.25, 0.49)	0.67 (0.40, 0.87)
Children under 18	0.71 (0.64, 0.77)	0.69 (0.58, 0.80)	0.82 (0.71, 0.91)	0.62 (0.49, 0.73)	0.73 (0.47, 0.93)
Num. Of children	2.55 (2.30, 2.82)	2.50 (2.12, 2.91)	2.33 (1.89, 2.80)	2.84 (2.38, 3.40)	2.27 (1.53, 3.00)
Dependence/drug abuse[a]	0.39 (0.32, 0.46)	0.39 (0.28, 0.51)	0.69 (0.56, 0.80)	0.19 (0.10, 0.30)	0.13 (0.00, 0.33)
Crime before age 15[a]	0.49 (0.42, 0.56)	0.44 (0.32, 0.56)	0.78 (0.67, 0.89)	0.33 (0.21, 0.44)	0.27 (0.07, 0.53)
First time in prison[a]	0.28 (0.22, 0.34)	0.32 (0.22, 0.43)	0.07 (0.02, 0.15)	0.35 (0.24, 0.47)	0.47 (0.20, 0.73)
Num. Previous sentences[a]	4.03 (3.07, 5.09)	2.82 (1.89, 3.96)	8.73 (5.96, 12.04)	1.82 (1.21, 2.68)	1.13 (0.53, 1.80)
Sentence length[a]	2.17 (1.82, 2.57)	2.49 (1.89, 3.24)	0.78 (0.43, 1.22)	2.51 (1.89, 3.20)	4.51 (2.79, 6.23)
Worked before prison*	0.49 (0.42, 0.56)	0.42 (0.31, 0.53)	0.22 (0.11, 0.33)	0.75 (0.63, 0.86)	0.80 (0.60, 1.00)
Expected hardness of finding job*	0.69 (0.63, 0.75)	0.76 (0.67, 0.86)	0.90 (0.82, 0.98)	0.47 (0.34, 0.61)	0.50 (0.29, 0.72)
Searched jobs during follow-up*	0.49 (0.42, 0.55)	0.59 (0.49, 0.70)	0.25 (0.15, 0.36)	0.49 (0.37, 0.62)	0.80 (0.60, 1.00)
Prison during follow-up*	0.26 (0.20, 0.31)	0.27 (0.18, 0.38)	0.55 (0.42, 0.69)	0.03 (0.00, 0.08)	0.07 (0.00, 0.20)

[a] Statistically significant differences across clusters (p-value < 0.05). 95% bootstrapped confidence intervals in parenthesis (1000 samples).

The formal group, in contrast, brings together those women with better prospects to obtain a good job: younger with low criminal involvement, and with better education and work experience.

The second goal of this paper is to assess the relevance of accounting for offending when describing employment patterns at reentry. While offending is often analyzed as an outcome in studies of employment at reentry (Ramakers et al., 2017) and desistance from crime (Laub and Sampson, 2003), the few studies that describe patterns of employment at reentry do not include offending as another way to make ends meet (Harding et al., 2019; Sugie, 2018; Western et al., 2015). As Western and Sirois (2019) hypothesize, ongoing criminal involvement could be closely associated with unemployment. When we include offending as a state in the employment sequences, we identify a new cluster characterized by women largely involved in crime. More important, this offender group was previously included among unemployed women, despite differences in a number of individual characteristics and in their willingness to find a job, as reflected in their searching behavior. Excluding illegal activities when exploring employment patterns mask critical heterogeneity in the different paths women follow at reentry. The new unemployed cluster concentrates those women who might experience larger entry barriers in the labor market: they may be stigmatized because of their criminal record, as indicated by the larger number of prior sentences these women have compared with the working clusters, or they may experience additional barriers given their lack of human and social capital (e.g., lower education and work experience). In some cases, their health problems (e.g., drug abuse) may push them out of the labor market, as reflected by the 39% who did not search for jobs. This raises the question of how women in this group make ends meet without working.

Prior research shows that family networks and governmental support may act as a key source of support during reentry (Harding et al., 2014; Mowen and Visher, 2015; Western et al., 2015). La Vigne (2009), for instance, reports that 65% of formerly incarcerated people rely on family for money 8 months after release. Western et al. (2015) also find that women are more likely to receive governmental and family support than men. These types of support may free individuals from working in the first place. Additional analyses provide some evidence in this regard, as women in this cluster are slightly more likely to report having income support from their families and the government during the first weeks out of prison. Understanding the role of these factors on unemployment would help to distinguish between women motivated to work but unable to overcome existing barriers, and those who decided to remain out of the labor force.

This group contrasts with the offender cluster, consisting of women who are possibly less interested in working, as reflected by the low percentage of job searches during the follow-up, or who experience additional barriers associated with their drug abuse and limited work experience. Characterizing these two groups better may shed light on the role of motivation to change in accessing employment at reentry, in line with research on correctional programming suggesting internal change as a "pre-requisite" to make opportunity-based programs successful in preventing re-offending (MacKenzie, 2006; Nakamura and Bucklen, 2014).

Finally, we find some level of doubling up in working and crime among women returning from prison, although sporadic and unlikely when analyzed in monthly intervals. This finding suggests that the prevalence of double up is sensitive to how and when we measure the behaviors of interest and calls for a better definition of the concept. In terms of transitions, while working decreases the chance of offending in the following month, we find that doubling up increases the probability of only offending more than working

exclusively. This result contradicts prior research suggesting that being involved in work and crime may act as a transition toward conformity (Loughran et al., 2017). Contrary to what we expected, we fail to find a clear connection between doubling up and job type, which could be a consequence of the specific context of reentry. On the one hand, given the high prevalence of informal jobs (Tornarolli et al., 2014), working in one of them may just reflect the opportunities available to women returning from prison and not a lower commitment to conventional behavior. On the other, most of the formal jobs women access were minimum wage jobs, not as different from the informal ones in terms of monthly income. Therefore, the type of job would be less relevant in explaining the need to supplement their incomes with illegal activities.

This paper is not without limitations. First, we only observe one year after release and use month-based reports. Looking at longer periods of time or shorter time-lags (e.g., daily reports) might change the trajectories we observe. Second, while we move beyond the employment/unemployment dichotomy, we analyze only one job per month. When two different categories of jobs were reported, we kept the one with higher quality (i.e., legitimate employed job). In this sense, we recognize that the statuses generated are not mutually exclusive. Consistently with the idea of *foraging* developed by Sugie (2018), a woman may have multiple jobs, even in different categories, as 26% of the women in our sample did. Thus, we may be overestimating the access to legitimate and employed jobs, but also the level of stability as we are not accounting for changes in jobs within categories. Third, we rely on self-reported information for both employment and crime. This could distort some of the trajectories because offending may be under-reported, particularly among those unemployed.

Finally, this paper contributes to the existing work analyzing an under-studied context with an under-studied population. Women face structural inequalities when participating in the labor market, and they encounter additional barriers related to their role as primary caregivers. These factors might determine gender differences in the types of jobs a formerly incarcerated woman can access. However, we lack the data to test this hypothesis. Moreover, informal jobs are particularly common in Latin America and are concentrated among female workers. As most of previous research has been conducted in the United States and the United Kingdom with primarily male samples (e.g. Sugie 2018), we are not certain whether the patterns and differences we observed are due to gender or to the context that defines which jobs individuals can access.

Despite these limitations, this paper helps understand work-crime trajectories at reentry by using detail information from a sample of women moving out of prison. While we confirm prior research findings on the precariousness of jobs formerly incarcerated people can access (Harding et al., 2019; Sugie, 2018), we extend this area of research by analyzing different types of jobs and accounting for offending as another income-generating activity. Our results show a significant level of heterogeneity and persistence in employment trajectories by job type, and a limited overlap between crime and work despite the high levels of marginalization in the job market experienced by women returning from prison. We descriptively explore potential mechanisms that could shape the different trajectories and discuss the role of barriers to and preferences for certain types of jobs that may explain the patterns found. We hope that future research can further expand on these open questions.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.ssresearch.2022.102844.

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