Getting Back to Work
Revamping the Economy by Removing Past Records

$20.846 BILLION

ESTIMATED LOSS OF GDP RESULTING FROM THE IMPACT OF OLD RECORDS

Los Angeles: $6,826,000,000
Santa Clara: $1,755,000,000
Orange: $1,393,000,000
San Diego: $1,362,000,000
San Bernardino: $992,000,000
San Bernardino: $689,000,000
San Francisco: $639,000,000
Sacramento: $639,000,000
Alameda: $614,000,000
Kern: $595,000,000
San Mateo: $519,000,000
Fresno: $439,000,000
Ventura: $267,000,000
Santa Barbara: $222,000,000
San Joaquin: $220,000,000
Contra Costa: $213,000,000
Monterey: $189,000,000
Stanislaus: $181,000,000
Solano: $174,000,000
Tulare: $155,000,000
Sonoma: $136,000,000
Yolo: $113,000,000
Butte: $102,000,000
Placer: $93,000,000
San Luis Obispo: $81,000,000
Merced: $72,000,000
Santa Cruz: $57,000,000
Marin: $52,000,000
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**Californians for Safety and Justice**

Californians for Safety and Justice is an advocacy organization working to replace over-incarceration with new approaches to safety that work to stop the cycle of crime and improve community wellbeing. We engage in legislative advocacy, research and communications, and crime survivor organizing. We’re working to change laws and systems to put the communities that have been most harmed and least helped at the center of public safety strategies and investments.

**UNITE-LA**

Founded in 1998, UNITE-LA has established itself as a trusted business intermediary, dedicated to supporting the development of an effective local public education system, so that ALL children and youth succeed in college, career and beyond. Through the intersection of programming, policy, and systems change efforts, UNITE-LA works to increase access to high-quality early childhood education, develop career pathways in high-growth industries, improve college access and success, and ensure workforce readiness, especially for individuals with high barriers into employment.
Foreward

The estimates in *Getting Back to Work: Revamping the Economy by Removing Past Records* show that at a minimum, California loses $20 billion from the state economy as a result of policies that disenfranchise potential workers with past conviction records. But this is just the tip of the iceberg—these statistics leave out many of the ways old records limit individuals’ employment, and California’s economic potential.

All businesses aim to hire the best person for each open position. Yet when candidates who could make companies stronger are excluded, simply because of restrictions due to a years-old legal record, we all lose out. As business leaders, we have seen the impact of the laws that drive these figures for quite some time.

That’s why we have backed laws, policies and practice changes that seek to eliminate the barriers to work that an old criminal record presents. We see this as the key to California strengthening our economy.

We have worked with city and state lawmakers to Ban the Box and helped implement large scale record change through Proposition 47. These were historic steps that helped hundreds of thousands of people overcome the challenge a past record has on someone’s ability to earn a living and contribute to our economy.

But the seven million people with an old record—and their families, neighbors, and prospective employers—need us to scale up our efforts to address this challenge.

There is a better way.

Lawmakers should create a process that, after a number of years, causes someone’s old records to sunset—and be automatically removed from access. These processes exist in California for some individuals, but not at enough scale to help millions that need relief.

This is the fairest, and most effective way to ensure that we can hire the workforce we need to build our state and local economy. Passing laws that allow millions of Californians to sunset old records is the pathway to unleash billions of dollars in economic growth, and allow all residents in this state to live up to their full potential.

David Rattray, President & CEO, UNITE-LA
Jay Jordan, Executive Director, Californians for Safety and Justice.
Executive Summary

Introduction

More than 7 million people in California have old criminal records of some kind.

Past records—of an arrest, a conviction for felony or misdemeanor—can limit someone’s ability to attain employment and earn a wage for the rest of their lives. These barriers to employment exist even as some sectors of the California economy—like healthcare and conservation—are in need of more and more people to fill vacant employment positions in these key areas. These types of jobs will be critical to building the economy back and improving health in the wake of COVID-19.

National studies have shown that the country loses anywhere from $78 to $87 billion in gross domestic product (GDP) every year because of the exclusion from many types of employment for people with past felony records alone, and more than $317 billion in earning potential is lost every year by people with an old record. Even being arrested—without any conviction arising from the arrest—can influence decisions around hiring and reduce one’s earning potential. The records with the most severe impact on employment eligibility are past convictions for misdemeanor and felonies. In a recent national survey of people with convictions, more than 4 out of 10 with any kind of conviction said they had difficulty finding a job (46 percent). Among those with a felony conviction specifically, nearly 7 in 10 (69 percent) adults said they have had difficulty finding a job long after they completed their sentence.

Californians for Safety and Justice and UNITE-LA have been working to reduce barriers people with old records face in attaining work, and commissioned this study to get a better picture of the scale of the problem in California. Working with data analysts and researchers, this study estimates the number of people with old records and the impact these records have on the California economy.
These estimates show that in 2018:

- 2.5 million working-age Californians (1 in 10) were living with a felony record.8
- The state Gross Domestic Product—the total value of goods produced and services provided in a place during one year—lost $20 billion (2021 dollars) due to the barrier a past felony record represents for people to be fully employed and contribute to the economy.
- The Los Angeles region lost more than $9 billion from their GDP, and eight Bay Area counties lost over $4 billion from their economic output. Five counties in the Central Valley Region lost nearly $1.5 million, and Sacramento and three neighboring counties lost more than $800 million from its GDP.

Subject to fluctuations in the economy and justice system practices overall, these estimated costs to the economy and the workforce of California reoccur every year. And these estimated costs are just the tip of the iceberg: they do not include many of the costs to the individual, their families, and their communities, and do not include every person with a past record and all the ways these costs are a drag on the state economy.

Lawmakers have taken bold steps to address the barriers an old record has on a person’s employment and economic stability. Various reforms, like Proposition 47, represent a historic step forward in lifting these barriers to employment and started to bring long overdue relief and record change opportunities at a scale previously unseen in this country.

But the scale of the $20 billion dollar drag on the California economy requires bold law changes and processes that can fully address the barriers old records place on limiting someone’s employment eligibility. There’s simply no reason to prevent people that have completed their sentences from working, becoming productive, and integrating into our communities. California’s economy, communities and families deserve that.

There is a bold solution – one that can eliminate these extreme barriers and give people a chance to attain meaningful redemption. By “sunsetting” convictions—fully establishing an automatic process that uses a standard operating procedure to expunge or seal past arrests or convictions—then people can finally integrate into our economy. Growing sectors of the economy that desperately need more employees will benefit. Families living on the edge of economic devastation will benefit, and our entire state economy will benefit. Lawmakers need to institute a process to “sunset” past records to cover the 2.5 million working-age people with past felony records and the millions more who could benefit from this change.
How does the lack of remedies for people with old records HURT THE ECONOMY?

More than 7 million Californians have criminal records of some kind—either an arrest record, a conviction for a felony or misdemeanor offense.9

These records can carry thousands of legal restrictions on many areas of civic life—limiting access and opportunities for employment.10

Even an arrest that does not result in a conviction can have an impact on someone’s ability to attain employment. One study found there was a 4 percentage-point reduction in employer callbacks for people with only a minor arrest record.11 Another study that considered women with records found that being arrested made women 9 percent more likely to drop out of the labor market.12

Any type of record can have a negative impact on a person’s stability and safety, but the most severe consequences documented in law affect millions of people with a past conviction. Many of these restrictions bear no relation to public safety or the originating crime, and can last a lifetime.13 Of the 4,800 laws that place restrictions on Californians after they have served their sentence, 58 percent limit employment and occupational licensing.14

Not being able to attain employment and earn a living has been shown to have a direct relationship to safety and stability, both for people with past convictions and their families, and for the whole California community.

Having a job reduces the likelihood of recidivism. People sentenced for crimes to prison or jail who worked prior to incarceration and those who find employment soon after release are less likely to be reincarcerated one year out.15 Additionally, communities with higher employment rates experience lower crime rates and lower rates of recidivism.16

Los Angeles Region
Estimated loss of Gross Domestic Product resulting from the impact of old records

$9.47 BILLION

$6,826,000,000 Los Angeles
$992,000,000 San Bernardino
$267,000,000 Ventura
$1,393,000,000 Orange
Extending record change relief means safer communities.

Some of the restrictions that limit the employment opportunities for people with old records were born out of specific public safety concerns.

However, most of the millions of people for whom a past record can stand in their way of attaining employment were not designed to address a specific safety issue, and there is no safety reason why these restrictions should exist today.

Any barrier that stands in the way of someone with an old record to attaining employment needs to pass an evidence-based threshold: If the prohibition placed on a person after sentence completion does not have a clear nexus with evidence on what enhances public safety, it should not be the law.

“Reducing recidivism increases public safety for our communities, and if we can create pathways of stability, we can work toward that end.”

–Eric Jones, Stockton Police Department.

“Our whole reason for having probation is public safety, successful rehabilitation and successful reentry back into the community. The way that the system is set up right now, it’s almost impossible to have a successful reentry. There are so many obstacles for individuals, which makes it hard for us to meet our goal. Our goal is public safety and reintegration back into the community.”

–Fernando Giraldo, Probation Chief, Santa Cruz County Department of Probation.

From: Repairing the Road to Redemption in California (2018).

When workers are gainfully employed, they support vital public resources through state and local taxes, they spend more as consumers supporting other workers, and they produce services and goods that boost the state’s economy. When employed, people with old felony records perform equally to their coworkers without convictions and stay at their jobs longer.

However, when old records stop workers from obtaining licenses or working in growth industries, it limits their employment prospects to often fluctuating or temporary positions or the least desirable jobs, requiring graveyard shifts or extensive travel. A 2017 survey of Californians with felony conviction records found that almost half (46 percent) had difficulty finding a job. A similar nationwide survey completed in 2020 found 7 in 10 (69 percent) adults with a past felony conviction said that they have had difficulty finding a job after sentence completion. The impact on employment is more pronounced in communities of color, among people living in urban areas, and for people without a college degree. When unemployment is concentrated, it can become a key driver of poverty, increased usage of public assistance and higher crime rates.
$20 BILLION: Estimating the impact of past records on the economy.

This analysis commissioned by Californians for Safety and Justice and UNITE-LA estimated the number of working-age people with past felony convictions in the state, the impact a conviction has on attaining employment, and the impact that has on the economy.

In 2016, the Center for Economic Policy Research (CEPR) estimated that among the working-age population nationally, between 7.2 and 8.1 percent of working-age people had felony conviction records in the United States. CEPR then used their estimates to calculate the economic impact of felony convictions nationally. In particular, they estimated that felony conviction records resulted in a loss of about $78 to $87 billion in the national annual GDP because some percentage of people with a past conviction were not working.

By the numbers: Estimated working-age Californians with a past felony record.

- 1.07 million working-age Californians with a past felony conviction who served time in prison
- 1.47 million working-age Californians with a past felony conviction who served a felony sentence other than prison (e.g., jail or probation)
- A total of 2.5 million people with a past felony conviction

Who is not included in this estimate?

- Millions of people with a past arrest that did not result in a conviction
- Millions of people with past misdemeanor convictions only
- Anyone still in prison in 2018
- Anyone younger than 18, or older than 64

Borrowing from this methodology, we used prison data to estimate the number of people serving felony sentences in prison who were released over the 46 years ending in 2018. They estimated that one million people were released from prison over the past 46 years, who were aged 18 to 64 in 2018. Put another way, 4.3 percent of the total working age population in 2018 (1 in 23 working-age people) had served felony sentences in prison. These estimates are consistent with other approaches to estimating the number of working-age or voting-age people who have served time in prison in California.

We then estimated the number of people who were convicted of a felony over the past 46 years: the estimate accounts for people who were sentenced to something other than prison, for example, jail time (including under realignment disposition options), or probation. This step brings the total of people in California with a past felony conviction who were working age in 2018 to 2.5 million. As a share of the population that are 18-64, this works out to 1 in 10 working-age Californians (or 10.2 percent) who were living with a felony conviction record in 2018.

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ESTIMATING the impact on employment AND GDP.

Applying the same national methodology used in national studies to this state, we then estimated how much lower the employment-to-population rate was in California because of past felony records, and what impact that had on the statewide GDP.

Key terms to keep in mind around these estimates:

**Employment-to-population rate:** This is the number of working-age Californians who are employed compared to the total number of working-age Californians. It is not the same as California’s actual employment rate (which factors in whether or not people are seeking employment): it assumes that everyone who is working-age could be working if jobs were available.

**Employment penalty:** This is the estimated percent that California’s employment-to-population rate is reduced because workers with felony records have a harder time obtaining employment because of those records.

**Employment loss:** We converted the percent reduction in the employment-to-population rate into an equivalent “number of workers” to make the data more relatable, so it is expressed as real people as well as the impact on the economy.

The estimates show overall employment in California in 2018 was about 1.2 percentage points lower than it could have been due to felony conviction records, equivalent to the loss of 305,000 workers. Because of this underemployment, California lost out on an estimated $19.5 billion in GDP in 2018—over $20 billion in today’s dollars.

These figures were then estimated for 28 counties with over 200,000 residents (who collectively represent 94 percent of the state population). Together, these figures show the local picture of the number of working-age people with past felony convictions, the employment impact expressed as workers who were not employed because of the conviction, and the lost GDP by county and regions. See Table 1: Estimated economic impacts of felony conviction records in California, 2018.

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<th>Sacramento Region</th>
<th>Estimated loss of Gross Domestic Product resulting from the impact of old records</th>
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<td>$845 MILLION</td>
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<tr>
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<td>$113,000,000  Yolo</td>
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<td>$93,000,000  Placer</td>
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These statistics project that hundreds of thousands of people across California communities are unemployed because of a past felony conviction, and billions of dollars are lost to the economy because residents are not working, spending money, and contributing to these communities.
ECONOMIC LOSSES
by state, region and county

Statewide, $20 billion in today’s dollars in GDP was lost because past felony records prevented residents from working and contributing to the economy.

Los Angeles and four neighboring counties lost more than $9 billion in GDP because people with past convictions were not working, and the eight San Francisco Bay Area counties lost $4 billion in GDP.

Five Central Valley region counties (Fresno, Merced, Tulare, San Joaquin, Kern) three largest neighboring counties, and Sacramento and two neighboring counties both lost over $840 million in GDP.

Just the tip of the iceberg: Other costs old records impose on the California economy

Among 7 million people with old records in California, this analysis focuses only on the impact of a past felony conviction on employment and how unemployment reduces California’s GDP. The $20 billion lost to the economy because of past felony convictions are likely just the tip of the iceberg. Several well documented impacts of a past record and conviction that reduce employment and reduce California’s economic potential are not fully accounted for in calculations of the GDP.

Reduced lifetime earnings for any type of conviction. National studies have shown that being sentenced to prison for crimes reduces hourly wages for men by approximately 11 percent, annual employment by 9 weeks and annual earnings by 40 percent. By age 48, a typical person sentenced to prison for crimes will have earned $179,000 less than if that person had never been incarcerated. Nationally, people with past misdemeanor and felony convictions who were not sentenced to prison lost $317 billion in earnings.

Reduced employment because of a past arrest. While there are legal protections around arrests that do not result in a conviction, a past arrest can remain on private sites online, commercial vendors’ databases, or the Federal Bureau of Investigation’s criminal record database. Even being arrested can reduce one’s stability and mobility. research show that someone with an arrest record is 4 percent less likely to be called back in for a job interview, and that the likelihood that someone will own a home is reduced.

Reduced tax revenue and increased use of public services. While the GDP does account for government spending on social goods, if someone with a past conviction is unemployed, that person is less likely to pay the same level of taxes if that person were able to be employed, and more likely to draw down on broad public benefits.

Reduced health and increased health care costs. GDP does account for health spending, but may not fully capture the increased spending an old record can cause. People with old records are much less likely to have health insurance, less likely to access preventative care, experience higher rates of chronic illness, are more likely to use the emergency room for care, and have higher overall mortality rates. This means higher costs for all Californians.
David: Sacramento
I can’t get work because of my record.

When I was growing up I wanted to play in the NFL. I was one of those city prodigies everyone expected to make it out. I had college scholarship offers, including from a lot of schools in the Pac-12 Conference. But when I had a child on my 17th birthday, I chose to stay, because that was my responsibility. I couldn’t just leave them behind.

In 2007, when I was 18, I was charged with misdemeanor battery. In 2008, I went to jail for a drug possession and was on an ankle monitor program for six months. I was on probation until 2012, but I haven’t been in trouble since.

When you get out, you can’t go to a construction site and say, “Who’s hiring?” You get backed into a corner and forced to work in certain fields. Your options are limited. You can go to a warehouse or a temporary agency that would find a job for someone with a felony conviction.

My last job, which I got through a friend, was surveying sewer systems—making sure the pipes are not leaking gas and stuff. I had to leave in March last year because of COVID. My nine-year-old daughter goes to school from home now and my wife is the main breadwinner. And finding new opportunities is complicated. My brother is the director of a hospital where they pay new security guards $17 an hour, but that’s not on the table for me because they have to be armed—and I’m not allowed to carry a weapon.

If I had a choice I wouldn’t go to one of these places that pay $10 or $11 per hour—not being able to make ends meet is defeating after a while. And so is being turned down from being active in my community. I love football and I love sports, and I would happily do things like help my friend in Stockton who works with kids’ sports programs. But even though he’s cool with me being there, and they could use help, I can’t be involved because of my background.

They say go get work. I want to work. I know where to get work — but I can’t, because of my record.
Remedies to provide relief around

BARRIERS TO
EMPLOYMENT

California has already taken some historic steps toward reducing the employment barriers relating to old criminal records.

These are remarkable successes that California now needs to build on. Key past reforms that started to create pathways for more record clearing and reduce some of the barriers to employment include:

**Ban the box.** The statewide ban-the-box legislation requires public and private employers to delay asking about conviction history during the hiring process. Some local governments have taken similar steps: for example, San Francisco and Los Angeles have passed their own citywide ban-the-box legislation.37

**Proposition 47.** In 2014, California voters passed Proposition 47, a law that reduced many low-level felonies to misdemeanors and authorized record change for any old record, no matter how old, to be reduced from a felony to a misdemeanor. Proposition 47 was the first time in U.S. history that voters approved mass record change at this scale, no matter how old the conviction. Roughly 380,00038 Californians have accessed felony-to-misdemeanor record change, but that is only about 38 percent of those estimated to be eligible.39

**AB 1076.** Automatic record change relief. In 2019, California lawmakers enacted Assembly Bill 1076. This law broke new ground by creating a process for automatic expungement of specified records that are eligible for expungement.

These reforms started a long overdue process of reducing the unnecessary and unsafe burdens recorded on people seeking work. They are a basis for policymakers to go further to expand record relief to the millions of Californians who would benefit from these policies, if they were expanded to the scale needed to address the drag on the economy.

### Central Valley Region
Estimated loss of Gross Domestic Product resulting from the impact of old records

- **$439,000,000** Fresno
- **$7,000,000** Merced
- **$155,000,000** Tulare
- **$220,000,000** San Joaquin
- **$595,000,000** Kern

$1.48 BILLION
Sandy: Mission Hills

They told me right then and there that they couldn’t hire me.

There’s a certain perception of people who have records and I don’t fit the mold. Prior to getting arrested, I was a probation officer in LA County.

I was celebrating my birthday in a bar, had too much to drink and ended up getting into a fight with two women in the restroom. I was charged with assault with a deadly weapon because I had a wine glass that broke while we were fighting. I had no prior record at all.

When I first got out, in 2013, I waited a while before looking for work because I was trying to spend as much time as I could with my son. Then I applied for a job as a receptionist, and they asked whether I had a record. When I said yes, they told me right then and there that they couldn’t hire me. After that, I was really demoralized and I gave up for a while. I couldn’t keep applying for jobs with the fear of rejection hanging over my head. It was bad for my self-esteem.

After about a year my husband’s best friend’s wife told me, “This place is hiring and your conviction doesn’t matter. They hire people that have convictions.” When I applied and got the job as a case worker for people coming out of jail and prison, it really helped me get back into my normal life.

But after a couple of years, I felt stuck. I was working with a lot of people who had masters degrees that were doing therapy, but I didn’t apply to any graduate school programs because of my record. I didn’t think they would let me in, and I didn’t know if they could find a place for me to do the internship I would need to graduate.

That’s another thing people don’t think about. A record is like a black cloud over your head all the time. It’s so hard to further your education or get another job because of the fear associated with a past record and what it can do. So a lot of people don’t even try.

People with records come from all different walks of life. You have rich people, poor people, Black people, white people. Yes, they take whatever they can when they first get out. But they want what everyone wants: a good job so they can support their family and contribute to their household.

If my record were sealed, I’d like to become a psychiatric nurse practitioner. I don’t know if I could do that now because they deal with controlled substances—I’d have to be certified by a government agency and I think my record would be an obstacle.

Giving people a pathway for hope will help. Because if there’s a pathway for hope, they’re going to take it. Just like me.
Conclusion:
SUNSET OLD RECORDS TO BUILD THE ECONOMY.

California loses over $20 billion in today’s dollars every year from its Gross Domestic Product because the equivalent of more than 300,000 working-age Californians were unemployed due to old felony conviction records.

This employment penalty is distributed among 2.5 million working-age Californians.

California should more fully address the barriers to attaining employment people with past records face and the impact that has on the state economy. To succeed, reforms must establish a mechanism for true relief. This means removing the burden on the individual and instituting a standard operating procedure that removes arrests and convictions automatically. A process to “sunset” arrests and convictions is the fairest and most efficient way to reduce barriers to success. Over time, moving to a process that is automatic and streamlined will also be more cost-effective for governments than the current arduous procedures individuals must undertake that consume precious courtroom labor and hours.

Lawmakers should ensure that the process of sunsetting records is:

- **Fully retroactive to automatically change very old records:** Current remedies in law are prospective, covering individuals with new felony records that occur in 2021 and beyond. People with old criminal records should be eligible for automatic record change. Of the 2.5 million people with a felony conviction who are working age, two-thirds received their conviction at least 10 years ago.

- **Apply to people sentenced to prison:** There are one million people estimated to be of working age with an old felony record that resulted in a prison sentence. None of these individuals can benefit from the remedies in current law. This needs to change. Every year, 38,000 people with a past felony conviction leave prison and face all the challenges documented here that prevent them from obtaining employment and contributing to the economy.

- **Address exclusions for certain crimes:** The data show that people sentenced to prison for crimes not covered by AB 1076 have extremely low recidivism rates—far lower than other types of crime that are currently eligible for automatic record change. Any future law should study these exclusions, and if there is no public safety reason for them, they should be eliminated.

Unleashing the full economic potential of the California economy and fully employing its residents will not occur until economic mobility is possible for everyone who lives in the state. The urgent policies advocated here are a step toward ending that injustice and building a stronger state economy.
APPENDIX and METHODOLOGY

How were these estimates developed?

There have been several attempts to calculate the economic impacts of living with felony records in the United States. This analysis borrows from the methodology used by the Center for Economic Policy Research (CEPR) in their 2010 report by John Schmitt and Kris Warner, and replication of the analysis by different authors in 2016.43

**Estimated working-age Californians who have served time in prison.**

Like CEPR, this analysis started with the Bureau of Justice Statistics (BJS) state prison releases for 1978–2018.44 Similar release data for 1972–1978 were obtained from California Department of Corrections and Rehabilitation (CDCR) reports. Unique to California, in 2010 the state passed AB 109 realignment, which transferred supervision responsibility for non-violent, non-serious, and non-sex offenses to county jurisdictions, dramatically reducing the state prison population and therefore releases.

**Appendix Chart 1: Number of Releases from California Prisons, 1972-2018**
We then used prison census data to disaggregate releases by age bracket (e.g., 20–24), assuming the released population reflects the same age structure as the institutional population and that individuals are evenly distributed within each age bracket (e.g. one-fifth of 20–24 are 20).45 We defined “working age” as ages 18 to 64, and therefore “aged out” releases once they reached age 65.

To mitigate double-counting in the release data due to recidivism (e.g., a person is released one year, readmitted the next year, and released again within the period studied), we applied a three-year return-to-prison rate adjusted upwards by 10 percentage points to account for returns outside of three years.46 Again, due to AB 109 realignment, returns-to-prison dramatically declined after 2010. We then applied age-specific mortality rates, using general population mortality rates adjusted up by 20 percent to account for the higher risk population.47

**Appendix Table 1. Number of Releases from California Prisons, 1972-2018**

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<td>Percentage of the state population by age</td>
<td>0.02%</td>
<td>0.28%</td>
<td>1.30%</td>
<td>2.46%</td>
<td>3.64%</td>
<td>5.21%</td>
<td>6.43%</td>
<td>8.00%</td>
<td>8.16%</td>
<td>6.73%</td>
<td>4.29%</td>
</tr>
</tbody>
</table>

Finally, we used prison census data to disaggregate releases by county, assuming the released population has the same county structure as the new admissions population and that released populations return to and remain in their county of commitment.48 This allowed us to subsequently conduct more localized economic analyses. Due to smaller population sizes and diversity in criminal justice practices, caution should be used when interpreting county estimates. This is especially true of counties with populations of less than 200,000 people, which we have therefore removed from the presented results.

**Estimated working-age Californians with felony records who were not sentenced to prison.**

In order to scale up our estimate of Californians who have served time in prison to include all felony records, we have used the share of all felony convictions that resulted in a prison sentence. The expanded estimate includes felony convictions resulting in prison sentences, jail sentences (including realignment dispositions), and probation sentences.

Data on sentences for felony convictions in California were unavailable, so – like CEPR – we used the average nationwide figure using biennial data from 1992-2006. On average, about 42 percent of state court felony convictions resulted in a prison sentence.49 Therefore, the remaining 58 percent of state court felony convictions resulted in a sentence other than prison (e.g. jail or probation).

**Appendix Table 2. Estimated number of working-age Californians who have served non-prison sentences for felony convictions, 2018.**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>417</td>
<td>12,114</td>
<td>48,742</td>
<td>91,702</td>
<td>138,146</td>
<td>178,059</td>
<td>227,742</td>
<td>277,162</td>
<td>287,035</td>
<td>213,763</td>
<td>1,474,882</td>
</tr>
<tr>
<td>Percent of the state population by age</td>
<td>0.03%</td>
<td>0.39%</td>
<td>1.79%</td>
<td>3.40%</td>
<td>5.03%</td>
<td>7.19%</td>
<td>8.88%</td>
<td>11.05%</td>
<td>11.27%</td>
<td>9.29%</td>
<td>5.92%</td>
</tr>
</tbody>
</table>
Because county estimates are also scaled up using this statewide average, they do not reflect jurisdictional differences in sentencing and therefore may over- or under-estimate in any given county. For example, if a county sentenced to state prison considerably less than the state average, then the number of people with felony convictions is likely underestimated, and conversely, if a county tended to sentence to state prison more than the state average, the number of people with felony convictions is likely over-estimated.

Appendix Table 3. Estimated number of working-age Californians who are living with felony conviction records (all sentence types).

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>719</td>
<td>20,887</td>
<td>84,039</td>
<td>158,106</td>
<td>238,182</td>
<td>306,999</td>
<td>392,659</td>
<td>477,866</td>
<td>494,887</td>
<td>368,557</td>
<td>2,542,900</td>
</tr>
<tr>
<td>Percent of the state population by age</td>
<td>0.06%</td>
<td>0.68%</td>
<td>3.09%</td>
<td>5.85%</td>
<td>8.68%</td>
<td>12.40%</td>
<td>15.31%</td>
<td>19.05%</td>
<td>19.42%</td>
<td>16.02%</td>
<td>10.21%</td>
</tr>
</tbody>
</table>

Appendix Chart 2. Percent of California’s population who are living with felony conviction records by age, 2018.

Estimated reduction in California’s employment-to-population rate

We used the employment penalties developed by CEPR based on available research to calculate the reduction in the employment-to-population rate in California as a result of felony conviction records. From CEPR (2010):

"...we assume that [people sentenced to prison for crimes who have been released and people with past convictions] pay an employment penalty of five percentage points (roughly consistent with the largest effects estimated using administrative data and the lower range of effects estimated using the aggregate data and survey data). In the medium-effects scenario, we assume that the employment penalty faced by [people sentenced to prison for crimes and people with past convictions] felons is 12 percentage points, which is consistent with the bulk of the survey-based studies. In the high-effects scenario, we assume that the employment penalty is 20 percentage points, which is consistent with the largest effects estimated in the survey-based studies, as well as, arguably, the findings of the employer surveys and audit studies."
Appendix Table 4. Estimated reduction in employment-to-population rate due to felony conviction records, 2018.

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5-percent-age-points</td>
<td>0.00</td>
<td>0.03</td>
<td>0.15</td>
<td>0.29</td>
<td>0.43</td>
<td>0.62</td>
<td>0.77</td>
<td>0.95</td>
<td>0.97</td>
<td>0.80</td>
<td>0.5</td>
</tr>
<tr>
<td>12 percentage points</td>
<td>0.01</td>
<td>0.08</td>
<td>0.37</td>
<td>0.7</td>
<td>1.04</td>
<td>1.49</td>
<td>1.84</td>
<td>2.29</td>
<td>2.33</td>
<td>1.92</td>
<td>1.2</td>
</tr>
<tr>
<td>20 percentage points</td>
<td>0.01</td>
<td>0.14</td>
<td>0.62</td>
<td>1.17</td>
<td>1.74</td>
<td>2.48</td>
<td>3.06</td>
<td>3.81</td>
<td>3.88</td>
<td>3.20</td>
<td>2.0</td>
</tr>
</tbody>
</table>

To make the results more accessible, we converted the estimated reduction in employment-to-population rate into an equivalent number of workers using California population data.\(^{50}\)

**Estimated loss of state and county gross domestic product (GDP)**

Assuming the medium effects (12 percentage points) scenario, we calculated a percentage-point loss of GDP statewide and by county, using data from the Bureau of Economic Analysis.\(^{51}\) Like CEPR, we assumed direct proportionality between GDP and employment and we assumed that workers with felony conviction records produce only one-half the output of the average worker, to account for typically lower educational attainment levels in the criminal justice population. Using the California Department of Finance CPI-U forecast for 2021, we adjusted these estimates for inflation into today’s dollars to better depict relative purchasing power lost to the state.

Appendix Table 5. Estimated loss of state GDP due to felony conviction records, 2018.

<table>
<thead>
<tr>
<th>Estimated reduction in employment-to-population rate</th>
<th>Estimated percentage-point loss of GDP</th>
<th>Estimated loss of GDP in millions</th>
<th>Estimated loss of GDP in millions (adjusted 2021 dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>1.2</td>
<td>0.6</td>
<td>19,484</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20,846</td>
</tr>
</tbody>
</table>

**Comparison to previous studies**

Several national estimates of the number of people living with old felony records have been conducted in recent years. Our estimates are broadly in line with the current literature.

Appendix Table 6.

<table>
<thead>
<tr>
<th>National Estimates</th>
<th>People who have served time in prison</th>
<th>People with felony conviction records</th>
<th>Lost workers due to conviction records</th>
<th>Lost GDP due to conviction records</th>
<th>Data through</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonczar (2003)</td>
<td>5,618,000</td>
<td>2001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uggen, Manza, Thompson (2006)</td>
<td>4,000,000</td>
<td>11,700,000</td>
<td>2004</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEPR (2010)</td>
<td>5,427,000</td>
<td>12,333,000</td>
<td>2008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shannon et al. (2011)</td>
<td>4,900,000</td>
<td>19,800,000</td>
<td>2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shannon et al. (2017)</td>
<td>7,300,000</td>
<td>19,000,000</td>
<td>2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEPR (2016)</td>
<td>6,138,000</td>
<td>13,950,000</td>
<td>2014</td>
<td>87,000,000,000</td>
<td>2014</td>
</tr>
<tr>
<td>Brennan (2020)</td>
<td>7,700,000</td>
<td>19,800,000</td>
<td>2017</td>
<td></td>
<td>2017</td>
</tr>
</tbody>
</table>

**California-Specific**

| Shannon et al. (2017) | 1,042,000 | 2,159,000 | 2010 |                                   |              |

**Current Estimates (2021)**

| 1,068,018 | 2,542,900 | 305,148 | 19,484,408,329 | 2018 |

As percent of CEPR (2016) estimate

| 17% | 18% | 16% | 22% |
## Appendix Table 7. Estimated economic impacts in California in counties with 200,000 residents or more.

<table>
<thead>
<tr>
<th>County</th>
<th>Estimated number of working-age people with felony records</th>
<th>Percentage of the working-age population with felony records</th>
<th>Estimated employment loss due to felony records (number of workers)</th>
<th>Estimated loss of GDP in millions (adjusted 2021 dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los Angeles</td>
<td>826,271</td>
<td>12.6</td>
<td>99,152</td>
<td>6,826</td>
</tr>
<tr>
<td>Santa Clara</td>
<td>98,134</td>
<td>8.0</td>
<td>11,776</td>
<td>1,755</td>
</tr>
<tr>
<td>Orange</td>
<td>160,204</td>
<td>8.0</td>
<td>19,225</td>
<td>1,393</td>
</tr>
<tr>
<td>San Diego</td>
<td>175,215</td>
<td>8.3</td>
<td>21,026</td>
<td>1,362</td>
</tr>
<tr>
<td>San Bernardino</td>
<td>201,339</td>
<td>14.7</td>
<td>24,161</td>
<td>992</td>
</tr>
<tr>
<td>San Francisco</td>
<td>34,574</td>
<td>5.7</td>
<td>4,149</td>
<td>689</td>
</tr>
<tr>
<td>Riverside</td>
<td>150,922</td>
<td>10.3</td>
<td>18,111</td>
<td>639</td>
</tr>
<tr>
<td>Sacramento</td>
<td>92,614</td>
<td>9.7</td>
<td>11,114</td>
<td>639</td>
</tr>
<tr>
<td>Alameda</td>
<td>67,696</td>
<td>6.4</td>
<td>8,124</td>
<td>614</td>
</tr>
<tr>
<td>Kern</td>
<td>93,854</td>
<td>17.0</td>
<td>11,263</td>
<td>595</td>
</tr>
<tr>
<td>San Mateo</td>
<td>32,347</td>
<td>6.8</td>
<td>3,882</td>
<td>519</td>
</tr>
<tr>
<td>Fresno</td>
<td>81,240</td>
<td>13.3</td>
<td>9,749</td>
<td>439</td>
</tr>
<tr>
<td>Ventura</td>
<td>35,057</td>
<td>6.7</td>
<td>4,207</td>
<td>267</td>
</tr>
<tr>
<td>Santa Barbara</td>
<td>30,685</td>
<td>10.7</td>
<td>3,682</td>
<td>222</td>
</tr>
<tr>
<td>San Joaquin</td>
<td>46,640</td>
<td>10.0</td>
<td>5,597</td>
<td>220</td>
</tr>
<tr>
<td>Contra Costa</td>
<td>27,726</td>
<td>3.9</td>
<td>3,327</td>
<td>213</td>
</tr>
<tr>
<td>Monterey</td>
<td>27,328</td>
<td>10.1</td>
<td>3,279</td>
<td>189</td>
</tr>
<tr>
<td>Stanislaus</td>
<td>35,466</td>
<td>10.6</td>
<td>4,256</td>
<td>181</td>
</tr>
<tr>
<td>Solano</td>
<td>26,174</td>
<td>9.7</td>
<td>3,141</td>
<td>174</td>
</tr>
<tr>
<td>Tulare</td>
<td>32,710</td>
<td>11.8</td>
<td>3,925</td>
<td>155</td>
</tr>
<tr>
<td>Sonoma</td>
<td>19,587</td>
<td>6.4</td>
<td>2,350</td>
<td>136</td>
</tr>
<tr>
<td>Yolo</td>
<td>15,901</td>
<td>10.8</td>
<td>1,908</td>
<td>113</td>
</tr>
<tr>
<td>Butte</td>
<td>19,679</td>
<td>14.1</td>
<td>2,362</td>
<td>102</td>
</tr>
<tr>
<td>Placer</td>
<td>13,292</td>
<td>5.7</td>
<td>1,595</td>
<td>93</td>
</tr>
<tr>
<td>San Luis Obispo</td>
<td>11,446</td>
<td>6.6</td>
<td>1,373</td>
<td>81</td>
</tr>
<tr>
<td>Merced</td>
<td>18,128</td>
<td>10.8</td>
<td>2,175</td>
<td>72</td>
</tr>
<tr>
<td>Santa Cruz</td>
<td>9,909</td>
<td>5.6</td>
<td>1,189</td>
<td>57</td>
</tr>
<tr>
<td>Marin</td>
<td>5,014</td>
<td>3.3</td>
<td>602</td>
<td>52</td>
</tr>
<tr>
<td><strong>CALIFORNIA</strong></td>
<td><strong>2,542,900</strong></td>
<td><strong>10.2</strong></td>
<td><strong>305,148</strong></td>
<td><strong>20,846</strong></td>
</tr>
</tbody>
</table>

Note: Due to data limitations, county estimates of the number of working-age people living with felony records may be over- or underestimated depending on the county’s historic reliance on state incarceration as a sentence for felony convictions. **Sources:** Bureau of Justice Statistics (BJS), National Prisoner Statistics Program, 1978–2018; California Department of Corrections and Rehabilitation (CDCR), various California Prisoners Reports (multiple years); Centers for Disease Control and Prevention (CDC), National Vital Statistics Report, Volume 60, Number 9 (2012); BJS, Felony Sentences in State Courts series (1996–2009); John Schmitt & Kris Warner, Center for Economic Policy Research (CEPR), Ex-offenders and the Labor Market (2010); California Department of Finance (DOF), E-4 Population Estimates (2018); Bureau of Economic Analysis, U.S. Department of Commerce, CAGDP2 Gross domestic product (GDP) by county and metropolitan area, 2018; DOF, CPI-U 2021 May Revision Forecast, April 2020. See Appendix for more details.
Endnotes

1 Methodology adopted from, Christman, A. & Natividad Rodriguez, M. (2016). Research Supports Fair Chance Policies. Retrieved from New York: National Employment Law Project: https://www.nelp.org/publication/research-supports-fair-chance-pol-icies/#_edn1, and applied to 2020 figures from the Federal Bureau of Investigation Criminal Justice Information Services. (2020). Interstate Identification Index (III) National Fingerprint File (NFF). Retrieved from: https://www.fbi.gov/services/cjis/compact-council/interstate-identification-index-iii-national-fingerprint-file-nff. In 2016, the National Employment Law Project published an estimate using 2012 data that showed, 70 million Americans had an arrest record by taking the number of individual level records in the Federal Bureau of Investigation’s Interstate Identification Index system (often referred to as “triple-i”). The 2012 Bureau of Justice Statistics (BJS) survey showed there were over 100 million individual people in the systems, and NELP used a conservative 30 percent reduction of this figure to bring it to 70,417,410. This 30 percent reduction was to account for people in the records system that may be deceased, and individuals listed more than once due to duplication: if a person is arrested in more than one state -- the databases are totaled across states, so when a person is arrested in multiple states they may appear in the main data count more than once. A person being in a single state and counted more than once would be a much more rare oversight in record accuracy. The methodology for estimating the number of adults nationwide who have an arrest record has been frequently cited in academic and peer reviewed literature (for example, the Journal of Criminal Law and Criminology, the American Journal of Criminal Justice, and Economic Inquiry), by lawmakers, and policy organizations. Goggins, B.R. & DeBacco, D.A. (2020, November 5). Survey of State Criminal History Information Systems, 2018. Retrieved from The National Consortium for Criminal Justice Information and Statistics: https://www.ncjrs.gov/pdffiles1/bjs/grants/255651.pdf


8 Working age is defined as ages 18 to 64.

9 Little Hoover Commission. (2016, October). Jobs for Californians: Strategies to Ease Occupational Licensing Barriers. Sacramento, CA. Retrieved from: https://lhc.ca.gov/sites/lhc.ca.gov/files/Reports/234/Report234.pdf. There are 11.4 million people listed in California’s database of arrests and convictions and applies a National Employment Law Project (NELP) national estimate that about 30 percent of the state’s rolls are deceased or double counted. An individual profile is created in the database when a person is arrested and fingerprinted for the first time, and is kept until that person reaches 100 years of age; Most recent data on the number of persons in the California database of arrests for 2018 indicate 10.5 million people, with a 30% reduction for duplication resulting in 7.3 million.


23 Ibid.


27 CSJ statewide estimates are broadly in line with other national and state estimates that show that at least 3 percent of adults in California had served time in prison and up to 10 percent of adults in California had past felony convictions, and that these rates were higher for African American adults: 12 percent and 25 percent respectively. Shannon, S.K.S., Uggen, C, Schnittkeker, J., Thompson, M., Wakefield, S., & Massoglia, M. (2017, October). The Growth, Scope, and Spatial Distribution of People with Felony Records in the United States, 1948-2010. Demography, 54(5): 1795–1818.


31 In young adults, assets and debt are measured, since there has been a frequently cited reduction in home ownership in young adults today. In a study of young adults, simply having an arrest cuts one’s assets in half, and can double one’s debt when compared to similarly situated young adults with no arrest. Maroto, M., & Sykes, BL. (2020). The varying effects of incarceration, conviction, and arrest on wealth outcomes among young adults. Social Problems, 67: 698–718.


40 By 2007, there were an estimated 1,692,574 people living with felony conviction records who were working age in 2018. This estimate increased by 850,326 people during the following ten years, 2008–2018, bringing the total in 2018 to 2,542,900 working-age people.


42 People sentenced to prison for a violent offense had a three-year conviction rate 22.0 percentage points lower than the rate for people sentenced to prison for a serious or violent offense. The California Department of Rehabilitation and Corrections reports that crimes against persons, which tend to be more serious and violent than property and drug crimes, are associated with lower recidivism. The California Department of Rehabilitation and Corrections reports that reductions in recidivism among people sentenced to prison for crimes against persons was one factor that influenced the three-year recidivism rate downward for the entire release population studies. See Recidivism Report for People Released from the California Department of Corrections and Rehabilitation in Fiscal Year 2014—15. California Department of Corrections and Rehabilitation. Division of Correctional Policy Research and Internal Oversight, Office of Research (January, 2020). Retrieved from, https://www.cdcr.ca.gov/research/wp-content/uploads/sites/174/2020/01/Recidivism-Report-for-Offenders-Released-in-Fiscal-Year-2014-15.pdf


43 CEPR has issued an updated report that uses the same methodology: Cherrie Bucknor and Alan Barber. (2016). The Price We Pay: Economic Costs of Barriers to Employment for Former Prisoners and People Convicted of Felonies.

44 1978–2018 data are from the Bureau of Justice Statistics, National Prisoner Statistics Program. Releases include: conditional releases (e.g., parole/probation), unconditional releases (e.g., commutations), releases to appeal or bond, transfers to other jurisdictions, deaths, AWOL/escape, and other releases.

Data Points for December 2018, Tables 1.4, 117, 119; Spring 2019 Population Projections, Table 1a and Appendix D. Age data are for males only, except for 2014–2018, which are for both genders combined. For 1983–1999, age group 50+ is split into 50-54, 55-59, 60 and over based on 1982 proportions. For 2014–2018, age group 18–24 is split into 18–19, 20–24 based on 2013 proportions. Age groups 60–64, 65 and over are combined in CDCR reports, so California Department of Finance civilian population estimates are used to disaggregate into those categories. For 2011–2012, data are unavailable, so linear interpolation is used. To correct for round in the original administrative data, all percentages are normalized.

46 CDCR. California Prisoners and Narcotic Addicts 1981 and 1982, Tables 48A and 48B; Recidivism Report for Offenders Released from the CDCR in FY 2014–15. 1980–2002 data are unavailable, so linear interpolation is used. 2016–2018 data are unavailable, so the 2015 rate is used for these years.


48 CDCR. California Prisoners (1977 and 1978, 1973, 1974–1975, 1976, 1979, 1980); California Prisoners and Civil Narcotic Addicts 1981 and 1982, Appendix Table II; California Prisoners & Parolees 2000, Table 5A; Characteristics of Felon New Admissions and Parole Violators Returned with a New Term (Calendar Year), Table 6; and the Center on Juvenile and Criminal Justice (CJCJ). California Sentencing Institute. Raw data files using CDCR data that are no longer available on the CDCR website. In-custody populations were not available by commitment county in earlier reports; only new admits were reported by commitment county. For consistency within county data, new admissions data for all years were used. Data for 1983–1998 and 2000–2003 were not available, so linear interpolation was used.

49 Bureau of Justice Statistics. (1996–2009). Felony Sentences in State Courts series. There have been several changes to California’s penal code during the time period studied that affected who could receive a prison sentence. In 1975, California changed its drug laws, reducing some marijuana offenses from felonies to misdemeanors. In 2011, California implemented AB 109 realignment, significantly reducing the felony offenses that are eligible for a prison sentence. In 2014, California voters passed Proposition 47, changing several property and drug crimes from wobblers to misdemeanors. Unfortunately, because of California’s data limitations we were unable to account for these changes.

50 For example, in 2018 there were 24.9 million Californians age 18-64. Applying a medium effects 1.2 reduction in employment-to-population rate (24.9 million multiplied by 1.2, divided by 100) returns 305,000 workers.
