Explaining sex offender recidivism: Accounting for differences in correctional supervision

ZACH BAUMGART, CARISA BERGNER, MEGAN JONES

WISCONSIN DEPARTMENT OF CORRECTIONS
An interest in sexual offending

There is a fundamental interest in reducing, preventing, and eliminating sexual offending.

“In the contemporary United States, individuals convicted of committing sexual offenses experience a higher level and intensity of public condemnation, and a greater degree of stigmatization and forfeiture of their civil liberties, than any other type of criminal offender, nonviolent or violent”
  - (Pickett, Mancini, & Mears, 2013)

Laws targeting sexual offending have been passed, then substantially strengthened in the 1990s:
  - Sex offender registration
  - Community notification
  - Civil commitment of violent sexual offenders
  - Residency restrictions
However, sex offenders are less likely to recidivate than non-sex offenders

Prior research has repeatedly shown a comparatively lower rate of general recidivism for sex offenders, relative to non-sex offenders:

- Alper & Durose (2019) found that 66.9% of violent sex offenders were re-arrested for a new crime within nine years, relative to 84.1% of all other offenders
- Tewksbury et al. (2012) found in a sample of New Jersey releases, the re-arrest rate was 58% for non-sex offenders, 23% for sex offenders
- Hanson & Bussiere (1998) found this trend to hold in a meta-analysis of 61 different studies

Sex offenders are more likely to sexually reoffend than are non-sex offenders

- Most recently, Alper & Durose (2019) found that, within 9 years, 7.7% of violent sex offenders reoffended with a new sexual offense, relative to 2.3% of non-sex offenders
- However, these rates are quite low relative to general reoffending, and in absolute terms, there are more non-sex offenders sexually reoffending than there are sex offenders
Why is this rate lower?

Explanations are limited

1. Sexual offending is easier to hide

2. Sexual offending is more poorly reported
   - Fisher et al. (2003) found that while nearly 700 students experienced some kind of sexual victimization in their lives, only 2.1% of those incidents were reported to police agencies

This project tests three explanations of this trend
Explanation 1: A demographic artifact

The relationship is the result of the statistically different characteristics between the two groups.

Sex offenders, relative to non-sex offenders, tend to:
- Be more likely to be white
- Have a higher level of educational attainment
- Have a higher mean age

Prior studies have shown lower rates of criminal justice system involvement for each of these demographic categories.

**Hypothesis 1:** Controlling for age, race, and educational attainment, there will be no significant difference between sex offender and non-sex offender general recidivism.
Explanation 2:
A difference in treatment

Treatment programming continues to drive correctional interventions within institutional settings

Differences in treatments are associated with difference in recidivism reduction by:

- Size of the reduction
- Characteristics of the offender
- Treatment area

In regards to sex offender treatment, fairly positive results found in terms of recidivism reduction (Schmucker & Lösel, 2015)

Hypothesis 2: Sex offenders who have completed SOT will have a significantly lower rate of recidivism compared to sex offenders who have not completed SOT
Explanation 3:
A difference in community supervision

Sex offenders are supervised much more strictly than are non-sex offenders
  ◦ Legal statutes layered on top of correctional policies

As a part of this tighter supervision, sex offenders may be revoked more often than non-sex offenders

Perhaps this higher rate of revocation is related to reduced recidivism
  ◦ Through simple incapacitation
  ◦ Through sanctions that are applied before criminal behavior occurs
  ◦ Through some other mechanism

Hypothesis 3: When no-new sentence revocations are accounted for, there will be no difference in recidivism rates between sex offenders and non-sex offenders
Methods
Sample of releases

All releases of men from WIDOC institutions, between 1990 and 2013

INITIAL SAMPLE

216,201
Sample of releases

All releases of men from WIDOC institutions, between 1990 and 2013

Removals

- Releases from new sentences or from revocations

INITIAL SAMPLE

Excluded releases 71,069

145,132
Sample of releases

All releases of men from WIDOC institutions, between 1990 and 2013

Removals
- Releases from new sentences or from revocations
- Civil commitments

INITIAL SAMPLE

- Excluded releases: 71,069
- Civilly committed: 565

Total: 144,567
Sample of releases

All releases of men from WIDOC institutions, between 1990 and 2013

Removals
- Releases from new sentences or from revocations
- Civil commitments
- Multiple releases in a year
- Death within three years

INITIAL SAMPLE

- Excluded releases 71,069
- Civilly committed 565
- Repeated release within year, or died within three years 2,913

141,654
Sample of releases

All releases of men from WIDOC institutions, between 1990 and 2013

Removals

- Releases from new sentences or from revocations
- Civil commitments
- Multiple releases in a year
- Death within three years
- Multiple release for same recidivism event

INITIAL SAMPLE

- Excluded releases 71,069
- Civilly committed 565
- Repeated release within year, or died within three years 2,913
- Repeated releases for same recidivism event 25,078

Total 116,576
Sample of releases

All releases of men from WIDOC institutions, between 1990 and 2013

Removals
- Releases from new sentences or from revocations
- Civil commitments
- Multiple releases in a year
- Death within three years
- Multiple release for same recidivism event
- List-wise deletion
Sample of releases

All releases of men from WIDOC institutions, between 1990 and 2013

Removals
- Releases from new sentences or from revocations
- Multiple releases in a year
- Death within three years
- Civil Commitment
- Multiple release for same recidivism event
- List-wise deletion

112,552 releases
- 76,905 unique offenders

INITIAL SAMPLE

Final sample 112,552

Excluded releases 71,069
Civily committed 565
Repeated release within year, or died within three years 2,913
Repeated releases for same recidivism event 25,078
Listwise deletion 4,024
Recidivism: as reconviction

A. Release from incarceration
B. 3 – 27 years
C. 3 – 27 years
D. Offense date, related to a conviction to WIDOC incarceration or supervision

General recidivism used over sexual recidivism

Sexual recidivism tends to be very low
They follow similar patterns

Also looked at two other measures, where only the recidivism event changes:
Reincarceration – a new admission to WIDOC incarceration
Rearrest – a new arrest in Wisconsin
Sex offender status

13,986 releases
- 11,422 unique sex offenders
Sex offender status

13,986 releases
  ◦ 11,422 unique sex offenders

Sex offense at release
  ◦ Must have been released for an active sex offense
  ◦ Based mostly on UCR categories and WI registry offenses

- Not a Sex Offender: 87.6%
- Sex Offender: 12.4%
  - Sex offense at release: 10,997
  - No sex offense at release: 2,989

ZACH BAUMGART - ZACHARY.BAUMGART@WISCONSIN.GOV
Sex offender status

13,986 releases
  ◦ 11,422 unique sex offenders

Sex offense at release
  ◦ Must have been released for an active sex offense
  ◦ Based mostly on UCR categories and WI registry offenses

Registered as sex offender at release
  ◦ Captures those missed by the first status
  ◦ Must have been registered within seven days after release from community supervision

Not a Sex Offender 87.6%
Sex Offender 12.4%
Registered at release 12,461
Not registered at release 1,525
Sex offender status

13,986 releases
- 11,422 unique sex offenders

Sex offense at release
- Must have been released for an active sex offense
- Based mostly on UCR categories and WI registry offenses

Registered as sex offender at release
- Captures those missed by the first status
- Must have been registered within seven days after release from community supervision

Not a Sex Offender 87.6%

Sex Offender 12.4%

Both a sex offense and registered at release 9,472

Only registered at release 2,989

Only sex offense at release 1,525
Other variables

Sex offender treatment
- Focus on 2010 – 2013
- Must have completed while incarcerated, prior to release
- Only tracking completion for a given release

Revocation
- As a type of reincarceration
- As a flag, some time after release

Features gathered at intake, from the offender
- Race, age, education level
Analysis technique

Survival analysis
  ◦ Controls for differences in follow-up periods
  ◦ Controls for differences in when tracking begins and ends
  ◦ Standard for predicting likelihood of an event occurring at some point in the future

Logistic regression, with fixed follow-up periods
  ◦ As a secondary check on the robustness of the survival analysis
  ◦ Easier for interpretation
Results
Difference in Recidivism

- Not a Sex Offender: 39.0%
- Sex Offender: 25.5%

Recidivism within 3 years

- 0%
- 20%
- 40%
- 60%
- 80%
- 100%
Difference in Recidivism

Recidivism within 3 years
- Not a Sex Offender: 39.0%
- Sex Offender: 25.5%

Sex Recidivism within 3 years
- Not a Sex Offender: 1.3%
- Sex Offender: 7.3%
Kaplan-Meier Survival Curve of Recidivism

Very similar in size to what other studies had shown

Risk to recidivate diverges sharply within the first few years, then stabilizes over time

Sex offenders have a lower risk of recidivating than non-sex offenders, in general, over time
Explanation 1: A demographic artifact
Explanation 1: A demographic artifact

Median Age
- Not a sex offender → 30
- Sex offenders → 33

<table>
<thead>
<tr>
<th>Race</th>
<th>Not a Sex Offender</th>
<th>Sex Offender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>47.6%</td>
<td>30.7%</td>
</tr>
<tr>
<td>White</td>
<td>48.4%</td>
<td>64.5%</td>
</tr>
<tr>
<td>At least a HS degree</td>
<td>55.4%</td>
<td>58.1%</td>
</tr>
</tbody>
</table>
**Explanation 1**

A demographic artifact

Sex offenders were more likely to be white, have a higher level of educational attainment, and to be older.

Each of these effects were independently associated with the risk to recidivate.

But controlling for these effects did not change the relationship between sex offender status and recidivism.

**Little evidence in favor of this explanation**

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex Offender</td>
<td>-.445***</td>
<td>-.346***</td>
<td>-.446***</td>
</tr>
<tr>
<td>Demographics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age*</td>
<td>-.027***</td>
<td>-.028***</td>
<td></td>
</tr>
<tr>
<td>Race†: Black</td>
<td>.154***</td>
<td>.169***</td>
<td></td>
</tr>
<tr>
<td>Race: All other</td>
<td>.270***</td>
<td>.270***</td>
<td></td>
</tr>
<tr>
<td>At least HS Education</td>
<td>.055***</td>
<td>.101***</td>
<td></td>
</tr>
<tr>
<td>Interactions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age X Education</td>
<td>.006***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black X Education</td>
<td>-.067***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age X Sex offender</td>
<td>-.017***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black X Sex offender</td>
<td>.247***</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Model Parameters**

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Likelihood</td>
<td>-727,256.08</td>
<td>-724,995.12</td>
<td>-724,857.78</td>
</tr>
<tr>
<td>df</td>
<td>1</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>N</td>
<td>112,552</td>
<td>112,552</td>
<td>112,552</td>
</tr>
<tr>
<td>DEV</td>
<td>1,454,512.16</td>
<td>1,449,990.25</td>
<td>1,449,715.55</td>
</tr>
<tr>
<td>BIC</td>
<td>1,454,523.80</td>
<td>1,450,048.40</td>
<td>1,449,820.23</td>
</tr>
<tr>
<td>AIC</td>
<td>1,454,514.16</td>
<td>1,450,000.25</td>
<td>1,449,733.55</td>
</tr>
</tbody>
</table>

* Age centered about sample mean.
† Race reference category = White.
*p < .05; **p < .01; ***p < .001 (two-tailed tests)
**Explanation 2**

A difference in treatment

Focusing only on sex offender releases from 2010 – 2013

Individual effects have roughly the same relationship here as for the full sample.

Sex offender treatment was negatively associated with general recidivism.

However, only 13.8% of sex offenders actually completed SOT.

There is a relationship, but unlikely to be driving the overall trend.

<table>
<thead>
<tr>
<th>Sex Offender Demographics</th>
<th>Model 4</th>
<th>Model 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age*</td>
<td>-.042***</td>
<td>-.040***</td>
</tr>
<tr>
<td></td>
<td>(.006)</td>
<td>(.006)</td>
</tr>
<tr>
<td>Race†: Black</td>
<td>.526***</td>
<td>.512***</td>
</tr>
<tr>
<td></td>
<td>(.111)</td>
<td>(.111)</td>
</tr>
<tr>
<td>Race: All other</td>
<td>.572***</td>
<td>.565***</td>
</tr>
<tr>
<td></td>
<td>(.128)</td>
<td>(.128)</td>
</tr>
<tr>
<td>At least HS Education</td>
<td>.152</td>
<td>.162***</td>
</tr>
<tr>
<td></td>
<td>(.090)</td>
<td>(.090)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interactions</th>
<th>Model 4</th>
<th>Model 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age X Education</td>
<td>.004</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>(.007)</td>
<td>(.007)</td>
</tr>
<tr>
<td>Black X Education</td>
<td>-.159</td>
<td>-.159</td>
</tr>
<tr>
<td></td>
<td>(.142)</td>
<td>(.142)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rehabilitative Program</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed SOT</td>
<td>-.794***</td>
</tr>
<tr>
<td></td>
<td>(.135)</td>
</tr>
</tbody>
</table>

* Age centered about sample mean.
† Race reference category = White.
*p < .05; **p < .01; ***p < .001 (two-tailed tests)
Explanation 3:
A difference in community supervision

Recidivism within 3 years

- Not a Sex Offender: 39.0%
- Sex Offender: 25.5%
Explanation 3:
A difference in community supervision

- Recidivism within 3 years:
  - Not a Sex Offender: 39.0%
  - Sex Offender: 25.5%

- Reincarceration within 3 years:
  - Not a Sex Offender: 58.3%
  - Sex Offender: 53.7%
**Explanation 3**

**A difference in supervision**

Sex offenders had a higher risk to be reincarcerated than did non-sex offenders.

But if we focus on reincarceration for JUST revocations without a new offense...
Explanation 3
A difference in supervision

Sex offenders had a higher risk to be reincarcerated than did non-sex offenders

But if we focus on reincarceration for JUST revocations without a new offense...

Sex offenders had a higher risk to be reincarcerated than did non-sex offenders, specifically for no new sentence revocations.
Explanation 3:
A difference in community supervision

Recidivism within 3 years
Not a Sex Offender: 39.0%
Sex Offender: 25.5%

Reincarceration within 3 years
Not a Sex Offender: 58.3%
Sex Offender: 53.7%
Explanation 3:
A difference in community supervision

- Recidivism within 3 years:
  - Not a Sex Offender: 39.0%
  - Sex Offender: 25.5%

- Reincarceration within 3 years:
  - Not a Sex Offender: 58.3%
  - Sex Offender: 53.7%

- Revocation after release:
  - Not a Sex Offender: 16.9%
  - Sex Offender: 32.0%
**Explanation 3**

A difference in supervision

Sex offenders had a higher risk to be reincarcerated than did non-sex offenders

Specifically, for no new sentence revocations

Being revoked was associated with a reduced risk to recidivate

Sex offender risk to recidivate decreased when revocation was added to model

---

Some evidence in favor of this explanation

---

### Model Parameters

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex Offender</td>
<td>-.445***</td>
<td>-.346***</td>
<td>-.446***</td>
</tr>
<tr>
<td></td>
<td>(.013)</td>
<td>(.013)</td>
<td>(.017)</td>
</tr>
<tr>
<td>Demographics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age*</td>
<td>-.027***</td>
<td>-.028***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.000)</td>
<td>(.001)</td>
<td></td>
</tr>
<tr>
<td>Race‡: Black</td>
<td>.154***</td>
<td>.169***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.008)</td>
<td>(.012)</td>
<td></td>
</tr>
<tr>
<td>Race: All other</td>
<td>.270***</td>
<td>.270***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.019)</td>
<td>(.019)</td>
<td></td>
</tr>
<tr>
<td>At least HS Education</td>
<td>.055***</td>
<td>.101***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.008)</td>
<td>(.012)</td>
<td></td>
</tr>
<tr>
<td>Interactions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age  X Education</td>
<td>.006***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.001)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black  X Education</td>
<td>-0.067***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.016)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age  X Sex offender</td>
<td>-0.017***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.001)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black  X Sex offender</td>
<td>0.247***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.028)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

* Age centered about sample mean.
† Race reference category = White.

*p < .05; **p<.01; ***p < .001 (two-tailed tests)

ZACH BAUMGART - ZACHARY.BAUMGART@WISCONSIN.GOV
Additional tests

Performed a variety of checks of other variables
- Other offense categories, release/admission types, characteristics of release location
- Due to collinearity, many of these were excluded
- Others were excluded because they were out of scope

An analysis of rearrest
- Relationships with rearrest were very similar to relationships with recidivism (reconviction)

An analysis that included release year as a control
- General trend held, through size of difference varied somewhat across time
Conclusion

There was very little evidence in favor of demographic relationships playing an intervening role

- However, these independent effects were systematically different between the two groups, which should not be disregarded

There was evidence that sex offender treatment reduced recidivism, but very few sex offenders actually completed treatment prior to release

- Should take what works from sex offender treatment, and apply it to other programs
- And obviously, expand sex offender treatment

Evidence that revocation played an important role in driving the relationship

- Though what it was about revocation was not tested
- Revocation was a proxy for differences in community supervision, and should not be taken as a direct effect
Future directions and contact info

1. Focus on sexual recidivism
2. Differences across types of sex offenders, non-sex offenders
3. Focus on the mechanisms through which these effects are realized
4. Use of release year effects

Thank you!
Zach Baumgart - Zachary.Baumgart@Wisconsin.gov
Carisa Bergner - Carisa.Bergner@Wisconsin.gov
Megan Jones - Megan.Jones@Wisconsin.gov