Youth Aging Out of Foster Care
Risk and Protective Factors for Criminal Justice System Involvement

Paula Ditton Henzel, MA • Jim Mayfield, MA • Andrés Soriano • David Marshall, PhD
Barbara E.M. Felver, MES, MPA

Report to the Washington State Office of Financial Management’s Statistical Analysis Center,
Thea Mounts, Director and Keri-Anne Jetzer, Forecast Analyst.

THE DEPARTMENT OF SOCIAL AND HEALTH SERVICES (DSHS) Children’s Administration provides foster care placement services to children in need of protection due to abuse, neglect, or family conflict. Most youth exit the foster care system at age 18. Some young adults remain in care through the Extended Foster Care program. Prior research indicates that compared to youth in the general population, foster youth aging out of care have an increased risk of criminal involvement during young adulthood (Cusick et al. 2011). To help inform targeted interventions and exit planning, this report begins to identify key risk and protective factors associated with criminal justice involvement (arrests and jail bookings) among youth transitioning to adulthood, the year after aging out of foster care. This report builds on a prior analysis using linked administrative data to identify key risk and protective factors associated with homelessness after aging out of care (see Shah et al. 2015).

Key Findings

We identified 1,365 youth statewide who exited foster care July 2010 to September 2013 at age 17 or older. We found the following:

1. **One in five youth aging out of foster care was arrested or jailed within one year.**

20%
Arrested or Jailed
One Year Later

2. **Recent involvement in the juvenile justice system was the strongest predictor of involvement in the adult criminal justice system.** Youth with a history of arrests or Juvenile Rehabilitation involvement were at significantly increased risk of arrest or confinement to jail as a young adult.

3. **A history of running away, alcohol or drug treatment need, and congregate care placements were associated with increased risk of criminal justice involvement after aging out of care.**

4. **Youth placed in Extended Foster Care were less likely to be arrested or jailed after aging out of care, but only a small portion of foster youth participate in extended care.**

This project was supported by Grant No. 2014-BJ-CX-K023 awarded by the Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice to the Office of Financial Management, Statistical Analysis Center. Points of view in this document are those of the authors and do not necessarily represent the official position or policies of the U.S. Department of Justice.
Study Population and Timeline

The study population includes 1,365 youth ages 17 to 21 whose last month in foster care was between July 1, 2010 to September 30, 2013. The index month, marking the beginning of the outcome period, was the last month the youth was physically in foster care. Using a twelve month outcome period, we identified youth who were arrested or jailed, and examined the risk and protective factors associated with either of those outcomes.

Data and Measures

This analysis leveraged information from linked Washington State administrative data systems. The following measures were used in the analysis. See technical notes for data source details.

- **Child welfare indicators**: Number and types of placements (relative or non-relative), type of abuse (sexual, physical, neglect), age at first removal, congregate care or group home placements, runaway episodes, behavior problems, reunifications and time in foster care.
- **Criminal justice history**: Arrests, jail bookings, Juvenile Rehabilitation services and adjudications.
- **Health and behavioral health indicators**: Injuries, pregnancy, alcohol or drug treatment needs and mental illness.
- **Homeless assistance**: Receipt of emergency shelter, transitional housing, rent assistance and supportive housing.
- **Public assistance**: Receipt of Basic Food or Temporary Assistance for Needy Families (TANF).
- **Employment**: Employment experience prior to exiting foster care.

Demographics

We examined demographic characteristics for the 1,365 youth aging out of foster care between July 2010 and September 2013. Nearly half of these young adults were male (48 percent, Figure 1) and half were female (52 percent). Most (80 percent) were 18 years old. Five percent were 17 when they exited care. Fifteen percent exited care over the age of 18 after placement in extended foster care. Just under half (45 percent) identified as non-Hispanic white and 55 percent as minorities.

**FIGURE 1.**

**Demographic Profile of Youth Aging Out of Foster Care**

July 1, 2010 through September 30, 2013, TOTAL = 1,365

**Gender**

- Male: 48%
- Female: 52%

**Age**

- 17: 5%
- 18: 8%
- 19: 3%
- 20: 4%
- 21:

**Race/Ethnicity**

- Any Minority: 45%
- White: 55%
- Non-Hispanic: 24%
- American Indian or Alaskan Native: 21%
- Pacific Islander: 4%
- Black: 2%
- Asian: 2%
- Hispanic: 18%
Criminal Justice Involvement Following Exit from Foster Care

Consistent with prior research, we found foster youth have an elevated risk of criminal justice involvement compared to their peers. Twenty percent of young adults were arrested or booked into jail in the 12 month period following exit from foster care, compared to 6 percent of 18 year olds (peers) served by DSHS or HCA (Figure 2).\(^1\) Among foster youth aging out of care:

- 13 percent were arrested for a misdemeanor offense,
- 10 percent were arrested for a gross misdemeanor, and
- 9 percent were arrested for a felony offense.\(^2\)

![FIGURE 2. Youth Involved in the Criminal Justice System after Aging Out of Foster Care Compared to Their Peers](image)

Youth Involved in the Criminal Justice System after Aging Out of Foster Care Compared to Their Peers
July 1, 2010 through September 30, 2013,
FOSTER YOUTH TOTAL = 1,365
DSHS/HCA PEER YOUTH TOTAL = 116,237

20% 6%
Foster Youth Arrested or Jailed n = 275
DSHS/HCA Peers Arrested or Jailed n = 7,919

Behavioral Health Need and Criminal Justice Involvement

We found high rates of behavioral health treatment need among the full sample of foster youth aging out of care and even higher rates among those who were jailed or arrested (Figure 3). Eighty-two percent of foster youth aging out of care had a behavioral health treatment need, compared to 30 percent of their peers (Medicaid youth). Nearly all of those who aged out and were then arrested or jailed (92 percent) had some behavioral health treatment need, and half of those arrested or jailed had co-occurring mental health and substance use disorder treatment needs.

![FIGURE 3. Percent of Youth with Behavioral Health Treatment Need](image)

Percent of Youth with Behavioral Health Treatment Need
Among Youth Aging Out of Foster Care Who Were Arrested or Jailed, Youth Aging Out of Foster Care, and Medicaid Youth

<table>
<thead>
<tr>
<th>Any Behavioral Health Treatment Need</th>
<th>Mental Health Treatment Need</th>
<th>Substance Use Disorder Treatment Need</th>
<th>Co-Occurring Treatment Need</th>
</tr>
</thead>
<tbody>
<tr>
<td>Youth Aging out of Foster Care Arrested or Jailed n = 275</td>
<td>92%</td>
<td>84%</td>
<td>58%</td>
</tr>
<tr>
<td>Youth Aging Out of Foster Care n = 1,365</td>
<td>82%</td>
<td>78%</td>
<td>34%</td>
</tr>
<tr>
<td>Medicaid Youth n = 94,706</td>
<td>30%</td>
<td>26%</td>
<td>10%</td>
</tr>
</tbody>
</table>

\(^1\) The two groups are not completely equivalent in age. Five percent of foster youth were age 17 and 15 percent were age 19 to 21.

\(^2\) Offense information was not available for jail bookings.
Predicting Criminal Involvement among Youth Aging Out of Care

We estimated a logistic regression model predicting whether a young person in the study population was arrested or jailed in the 12 months after aging out of care. Prior research has identified substance use disorder diagnoses, gender, out-of-school status, limited caregiver closeness (McMahon & Fields 2015), minority status, prior arrests, group care and multiple placements (Cusick et al. 2011) as significant predictors of criminal conduct for aging out foster youth. Education and employment have both been identified by prior research as protective factors (Cusick et al. 2012).

We found that, compared to other youth aging out of care, those with a recent prior arrest (in the past 24 months) were nearly four times as likely to be arrested or jailed (Figure 4) in the first year after aging out of care. Other factors highly predictive of criminal justice involvement were prior runaway episodes, gender (being male), and substance use disorder treatment need. Youth with a history of Juvenile Rehabilitation involvement or two or more congregate care placements were also more likely to be arrested or jailed. While youth with diagnoses reflective of externalizing behavior problems, such as psychosis, bipolar disorders and ADHD had an increased risk of criminal justice involvement, those with internalizing diagnoses such as depression or anxiety, had a decreased chance of criminal involvement. Youth who were placed in Extended Foster Care had a decreased risk of criminal justice involvement, which approached statistical significance ($p = .115$). Education data was not available for this analysis. As a result, this predictive model should be considered preliminary.

**FIGURE 4.**

Odds of Experiencing Criminal Justice Involvement after Aging out of Foster Care

<table>
<thead>
<tr>
<th>RISK FACTORS</th>
<th>DECREASED RISK</th>
<th>INCREASED RISK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrested in prior 24 months</td>
<td></td>
<td>3.8</td>
</tr>
<tr>
<td>Runaway episode</td>
<td></td>
<td>2.1</td>
</tr>
<tr>
<td>Youth is male</td>
<td></td>
<td>2.0</td>
</tr>
<tr>
<td>Juvenile Rehabilitation involvement in lifetime</td>
<td></td>
<td>1.7</td>
</tr>
<tr>
<td>Substance use disorder treatment need</td>
<td></td>
<td>1.6</td>
</tr>
<tr>
<td>MH diagnosis (psychotic, bipolar, ADHD, conduct disorder)</td>
<td></td>
<td>1.6</td>
</tr>
<tr>
<td>2+ congregate care placements (relative to less than 2)</td>
<td></td>
<td>1.5</td>
</tr>
<tr>
<td>Youth is a minority</td>
<td></td>
<td>1.4</td>
</tr>
</tbody>
</table>

| PROTECTIVE FACTORS | DECREASED RISK | |
|--------------------|----------------|
| MH diagnosis of depression, anxiety or adjustment disorder | 0.7 |
| Youth was placed in extended foster care | 0.6 |

Note: All factors are statistically significant at $p < .05$, except extended foster care ($p = 0.115$).

Calculating a Criminal Justice Risk Score

We included these same factors in a linear probability regression model, which allowed us to calculate easily interpretable criminal justice risk scores. The estimated scores (the predicted probability a youth will be arrested or jailed in the 12 months after exiting foster care), ranged from 0 to .8. These scores could be used to identify youth who might benefit from an intervention prior to aging out of care. For example, a young adult with a score of .30 has a 30 percent chance of experiencing an arrest or jail booking. Among youth arrested or jailed ($n = 275$), a score of .30 or higher successfully identifies 65 percent ($n = 179$) of youth who were arrested or jailed after exit from foster care. Twenty seven percent ($n = 368$) of youth in the study population had calculated scores at or above the .30 threshold.
HYPOTHETICAL EXAMPLES
Using a Calculated Risk Score to Support Referral Decisions

HYPOTHETICAL CASE #1

**Michael**
Michael is a white, non-Hispanic 18-year-old male with recent involvement in the juvenile justice system. He was arrested in the 24 months prior to exiting foster care. He was adjudicated and committed to a Juvenile Rehabilitation facility. He struggles with attention deficit hyperactivity disorder (ADHD) and an alcohol use disorder. He has a history of running away from congregate care facilities. There is a 71 percent chance that Michael will become involved in the adult criminal justice system in the year after exiting foster care.

**Calculating Michael’s Risk Score**

<table>
<thead>
<tr>
<th>FACTORS</th>
<th>SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline score</td>
<td>0.6%</td>
</tr>
<tr>
<td>Arrested in prior 24 months</td>
<td>24.8%</td>
</tr>
<tr>
<td>Juvenile Rehabilitation Involvement</td>
<td>11.6%</td>
</tr>
<tr>
<td>Runaway Episode</td>
<td>9.1%</td>
</tr>
<tr>
<td>Male</td>
<td>7.5%</td>
</tr>
<tr>
<td>Alcohol or Drug Treatment Need</td>
<td>6.7%</td>
</tr>
<tr>
<td>Diagnosis of ADHD</td>
<td>5.4%</td>
</tr>
<tr>
<td>2+ Congregate Care Placements</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

**TOTAL SCORE = 70.7%**

- Refer for Intervention

HYPOTHETICAL CASE #2

**Jessica**
Jessica is a young Hispanic woman with no history of juvenile justice system involvement. She struggles with bipolar disorder but does not have evidence of other key risk factors. She exited care at age 21 after placement in Extended Foster Care. There is a 7 percent chance she will experience involvement in the adult criminal justice system in the 12 months following exit from care.

**Calculating Jessica’s Risk Score**

<table>
<thead>
<tr>
<th>FACTORS</th>
<th>SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline score</td>
<td>0.6%</td>
</tr>
<tr>
<td>Minority</td>
<td>4.0%</td>
</tr>
<tr>
<td>Bipolar</td>
<td>5.5%</td>
</tr>
<tr>
<td>Extended Foster Care</td>
<td>−3.2%</td>
</tr>
</tbody>
</table>

**TOTAL SCORE = 6.8%**

- Do Not Refer for Intervention
We also examined the proportion of youth who were arrested or booked into jail by month after aging out of foster care, for the factors signaling the greatest risk (prior arrests, runaway episodes and being male). Nearly half of youth with a recent arrest as a juvenile were arrested or booked into jail as young adults one year after aging out of care (Figure 5). Thirty-four percent of youth with a runaway episode were arrested or confined in jail one year after aging out of care, compared to 11 percent of those with no history of runaway episodes. Nearly 30 percent of males became involved in the criminal justice system one year after aging out of care, compared to 14 percent of females. We also examined arrest/jail rates for Extended Foster Care, a protective factor identified in the analysis. By month twelve, 7 percent of those who exited foster care at age 19 to 21 after placement in Extended Foster Care experienced an arrest or jail booking, compared to 22 percent of youth not placed in Extended Foster Care. It is important to note that relatively few youth participated in Extended Foster Care, just 15 percent (n = 206) of the study population.

FIGURE 5.
Youth Arrested or Booked into Jail in the Months Following Transition Out of Foster Care

Youth with a recent prior arrest

- Youth with a recent prior arrest
  - 49%  
  - Youth not recently arrested 11%

Youth with a runaway episode

- Youth with a runaway episode
  - 34%
- Youth with no runaway episodes 11%

Being Male

- Youth is male 27%
- Youth is female 14%

Extended Foster Care

- Youth not in Extended Foster Care 22%
- Youth in Extended Foster Care 7%

SOURCE: Jail Booking and Reporting System (JBRS) and the DSHS Integrated Client Database (ICDB).
Discussion

We found that compared to their peers, youth who aged out of foster care were at increased risk of involvement in the adult criminal justice system. Identifying factors that place foster children at risk of criminal involvement during the transition to adulthood has important implications for child welfare policy and practice. Our findings indicate that placement to congregate or group care, which is likely associated with other risk factors such as running away and behavioral health problems, increased the likelihood foster youth would be arrested or jailed after aging out of care. This finding is consistent with previous research and recommendations to minimize congregate care placements (Cutuli et al. 2016, U.S. Department of Health and Human Services 2015). This analysis also highlights the need to develop prevention strategies around runaway episodes and treatment for substance use disorders, both of which place youth at increased risk for criminal involvement. Nearly 40 percent of foster youth in this study cohort ran away from their foster placement at least once and two-thirds had substance use disorder treatment needs.

A small number of youth were placed in the Extended Foster Care program, just 15 percent of those exiting care during the three year study period. We found that youth placed in Extended Foster Care were less likely to become involved in the adult criminal justice system. The Extended Foster Care program allows young adults in foster care to voluntarily agree to continue care up to age 21 while they complete high school, a GED program, college or vocational programs, or participate in a program or activity that promotes employment. The Extended Foster Care program serves a select group of foster youth with a desire to attend school or pursue employment, a group less prone to involvement in the criminal justice system. However, a previous evaluation of the Extended Care program using a matched comparison group of foster youth who graduated from high school before the program was available still found favorable results: Extended Care enrollees were less likely to be arrested, they also attended college for a longer period of time, and received food stamps for fewer total months when compared to their peers, making the program cost-beneficial (Burley & Lee 2010).

The current analysis was notably missing education data, which previous research indicates is an important factor in predicting criminal involvement after leaving care (Cusick et al. 2012). Foster youth in Washington State engaged in school or work are less likely to experience an arrest, conviction or confinement in jail (Sharkova et al. 2016). Future analyses to refine a criminal justice scoring algorithm should include education data, particularly in-school status.

Because minority status was included as a predictor of future criminal justice involvement, it is important to note that this is not without controversy. Algorithms using race among other factors to make decisions about sentencing and release have come under justifiable scrutiny. Note, however, that the goal of this analysis is to identify opportunities for services and interventions that may reduce the likelihood of future criminal justice involvement.

Using a scoring algorithm or a criminal justice risk score to identify youth at greatest risk of criminal justice involvement can help target high risk youth most likely to benefit from additional services. Our findings suggest that foster youth involved in the juvenile justice system, and those with multiple risk factors like a substance use disorder and a history of runaway episodes or congregate care placements are at high risk for involvement in the adult criminal justice system and could benefit from referral to evidence-based intervention programs prior to exiting care. These youth may continue to need additional support as they transition to young adulthood. Extended foster care is one such intervention, but there are likely other ways to intervene with this vulnerable group.
REFERENCES


TECHNICAL NOTES

STUDY POPULATION
The study population includes 1,365 individuals whose last month in foster care placement occurred between July 1, 2010 and September 30, 2013 and were 17 or older as of their last month in placement. We excluded five individuals whose last placement was either a trial return home/in-home dependency or adoption. We also excluded 22 youth who were not at risk of arrest because they were incarcerated during the entire 12-month outcome period.

Comparison data for peer youth includes 18-year-olds served by DSHS or HCA during the study period (n=116,237). We assigned the index month as the month the youth turned 18 and examined arrest and jail bookings over a 12-month outcome period. Behavioral health data for peer youth were limited to youth with at least one month of Medicaid enrollment during the 24 months prior to the index month (n=94,706). Foster youth in the study population (n=1,365) were excluded from the peer comparison data.

DATA SOURCES AND MEASURES
RDA leveraged data from the following sources:

Jail Booking and Reporting System (JBRS)
Jail data was obtained from JBRS, a multijurisdictional database of jail booking and release records. All non-tribal city and county jails in Washington State are connected to the JBRS system, with the exception of Aberdeen and Hoquiam. The JBRS data contain incomplete booking records for Franklin and Kitsap Counties due to changes in local booking systems. Information on the charging offense at the time of booking is not available in the JBRS. For more information on the JBRS system see [http://www.waspc.org/jail-booking-and-reporting-system-jbrs](http://www.waspc.org/jail-booking-and-reporting-system-jbrs).

DSHS Integrated Client Databases (ICDB)
Service information, arrest and employment data were obtained from the DSHS Integrated Client Databases (ICDB), a set of longitudinal, integrated client databases containing nearly 20 years of detailed service risks, history, service costs and outcomes (Mancuso, 2014).

- **Child welfare system:** Data on experiences youth had in foster care over their lifetime came from the FAMLINK information system maintained by the DSHS Children’s Administration. These data were used to identify the number and types of placement events, runaway episodes, type of abuse at intake (sexual, physical, neglect, other), the presence of behavior issues and other information recorded by caseworkers.

- **Arrests:** Records from the Washington State Patrol (WSP) database were used to identify arrests. The WSP database contains primarily felonies and gross misdemeanors.

- **Behavioral Health Treatment Need:** Data from three information systems, including ProviderOne (medical), the Consumer Information System (mental health), and TARGET (substance use disorder) were used to identify the presence of mental illness and substance use disorders over a two-year window of time (the 24 months prior to exit from foster care) based on health and behavioral health diagnoses, prescriptions and treatment records. In addition, drug and alcohol-related arrest data maintained by the Washington State Patrol was used to identify likely substance abuse issues.

- **Medicaid coverage:** Medicaid enrollment was obtained from eligibility codes available in the ICDB.

- **Homeless system:** Data from the Homeless Management Information System (HMIS) was used to identify individuals defined as homeless by virtue of having received emergency shelter, transitional housing, or rent assistance recorded by local housing providers.

- **Employment:** Employment data were obtained from state Employment Security Department wage data. Youth were flagged as having recent employment experience if they had at least one quarter of non-zero earnings in the four quarters prior to exiting foster care.

- **Public assistance:** Basic Food and TANF receipt were identified through data from the DSHS Automated Client Eligibility System (ACES) summarized in RDA’s Client Services Database.
ACKNOWLEDGEMENT

We want to acknowledge the work of our colleagues throughout the research and data analysis division and our partner programs for all the work they do in serving Washington's vulnerable populations.

REPORT CONTACT: Alice Huber, PhD, 360.902.0707
VISIT US AT: https://www.dshs.wa.gov/SESA/research-and-data-analysis