



Research on Juvenile Administrative Fees

Oregon law authorizes courts, state agencies, and local entities to charge a wide range of fees to the youth and their families in the juvenile delinquency system. This packet summarizes key research about juvenile administrative fee practices in Oregon and nationally. Researchers have found that juvenile fees are regressive and racially discriminatory taxes that undermine the financial and emotional wellbeing of youth, families, and communities, are costly to collect, and reduce the quality of government services.

- 1. Support SB 422: End Juvenile Fees in Oregon** (Youth, Rights & Justice, [2020](#))
Fact sheet on why juvenile administrative fees are harmful and unproductive.
- 2. Question & Answer: Oregon Juvenile Fees** (Youth, Rights & Justice, [2020](#))
Research summary of juvenile administrative fees in Oregon.
- 3. Advancing Youth Justice: An Assessment of Access to and Quality of Juvenile Defense Counsel in Oregon** (National Juvenile Defender Center, [2020 Press Release](#))
Study of Oregon's juvenile system calling on the state to repeal all fees and fines.
- 4. The Negative Effect of Fines and Fees in Juvenile Justice** (Youth, Rights & Justice, [2020](#))
Article on the harmful impacts of fees and fines on youth in Oregon.
- 5. Impact of Juvenile Justice Fines and Fees on Family Life: Case Study in Dane County** (Leslie Paik, [2019 Executive Summary](#))
Study finding that fees and fines weaken family ties and strain parent-child relationships.
- 6. Justice System-Imposed Financial Penalties Increase the Likelihood of Recidivism in a Sample of Adolescent Offenders** (Alex Piquero and Wesley Jennings, [2016](#))
Study finding fees and fines increase youth recidivism.
- 7. Exploitative Revenues, Law Enforcement, and the Quality of Government Service** (Rebecca Goldstein et. al., [2016 Abstract and Introduction](#))
Study finding reliance on fees and fines revenue correlates to lower clearance rates of serious crimes.
- 8. Resolution Addressing Fines, Fees, and Costs in Juvenile Courts** (National Council of Juvenile and Family Court Judges, [2018](#))
Resolution recommending elimination of juvenile fees and fines.
- 9. Debtor's Prison for Kids: The High Cost of Fines and Fees in the Juvenile Justice System** (Juvenile Law Center, [2016 Executive Summary](#))
Report documenting the widespread and harmful practice of charging fees and fines.
- 10. Making Families Pay: The Harmful, Unlawful, and Costly Practice of Charging Juvenile Administrative Fees in California** (UC Berkeley Policy Advocacy Clinic, [2017 Executive Summary](#))
Study finding that juvenile fees harm families and are costly to administer.

Support SB 422: End Juvenile Fees in Oregon



Fees disproportionately harm youth of color

The longer a young person is in the system, the more fees their family faces. Black and Indigenous youth are overrepresented at every stage of the juvenile system.



Black youth are 3.3x more likely than White youth to be committed to the Oregon Youth Authority.



Indigenous youth are 3x more likely than White youth to be placed on probation or committed to the Oregon Youth Authority.



Fees undermine youth, families, and communities

Fees and penalties for failure to pay fees (such as wage garnishment, property seizure, extended detention, and license suspension), undermine the financial and emotional well-being of youth and their families.



Fees generate little or no net revenue

The Division of Child Support spent \$866,000 to collect \$864,000 from families with children in Oregon Youth Authority custody in 2019. Circuit courts collect only 20% of the juvenile fees they charge.



6 states have abolished some or all juvenile fees: CA, MD, NV, NH, UT, & WA

14 states are considering fee abolition in 2021: AR, AZ, CO, DE, FL, IN, LA, NM, MI, NJ, PA, TX, VA, & WY

Oregon should stop charging regressive and racially discriminatory fees.



Question and Answer: Juvenile Administrative Fees in Oregon

Summary

Administrative fees are common in Oregon’s juvenile delinquency system. Although practices vary, county juvenile departments, circuit courts, and state agencies all [regularly charge juvenile administrative fees](#) to the families of youth in delinquency cases:

- **County juvenile departments** charge administrative fees for probation supervision, electronic monitoring, mandatory classes, and other aspects of system involvement.
- **Circuit courts** charge administrative fees for public defenders and for the referral of debt to collections, among many other fees.
- The Division of Child Support charges families for their children’s detention in **Oregon Youth Authority** facilities.

Research shows that juvenile fees undermine the [financial and emotional well-being](#) of youth and their families. They also have a disproportionate impact on [Black, Indigenous, Latinx, and low-income families](#). [Ability-to-pay](#) processes fail to address these regressive and discriminatory inequities.

Fees [generate little or no net revenue](#). Fee revenue is declining for juvenile departments, circuit courts, and the Oregon Youth Authority. Collection costs are substantial and increasing over time. In some cases, collection costs exceed revenue.

Q1: What are juvenile administrative fees?

A1: *“Juvenile administrative fees” describe a broad range of fees and surcharges that the government imposes on youth and their families across Oregon’s juvenile delinquency system. County juvenile departments, circuit courts, and state agencies all charge administrative fees in delinquency cases.*

County juvenile departments charge at least nine different administrative fees for probation supervision, electronic monitoring, diversion, and other aspects of system involvement.¹ Probation supervision is the most common fee, with charges ranging from \$10 to \$200 per case.² In a 2020 survey, 24 counties reported charging fees to youth and their parents.³ Six counties reported that they do not charge fees⁴ and six counties did not respond to the survey.⁵

Circuit courts impose a variety of administrative fees. Some of the most common juvenile court fees are for a public defender, record expungement, reinstating a suspended license, and referring debt to collections.⁶ According to data from the State Court Administrator (SCA), circuit courts in all but three counties (Wasco, Grant, and Gilliam) imposed fees in 2019.⁷

The Division of Child Support (DCS) charges families “child support” for youth incarcerated at the **Oregon Youth Authority (OYA)**.⁸ In December 2020, DCS reported that nearly 1,600 parents and guardians were responsible for support payments to the Oregon Youth Authority.⁹

Q2: How do juvenile administrative fees impact youth and families?

A2: *Most research has found that juvenile administrative fees cause significant financial and emotional harm to youth and their families.*

Several studies have documented the harm of juvenile fees, which strip wealth from predominantly low-income families:

- In a national [study in 2016](#), the Juvenile Law Center found that fees push youth deeper into the criminal system.¹⁰
- A related [2016 study](#) found that the economic harm of juvenile monetary sanctions correlates with increased recidivism.¹¹
- A [2017 UC Berkeley study](#) found that juvenile administrative fees cause financial hardship to families, weaken family ties, and undermine family reunification.¹²
- A [2019 case study](#) found that juvenile administrative fees strain family ties and can adversely affect mental and emotional health.¹³

Q3: Do juvenile administrative fees impact all youth and families the same?

A3: *Fees disproportionately affect Black, Indigenous, and Latinx youth because they are over-represented in the delinquency system.*

The longer a young person is in the juvenile system, the more fees their family faces. Black, Indigenous, and Latinx youth are overrepresented at every stage of the juvenile system, and the disparities only accumulate as youth move through the system. According to OYA:

Compared to White youth, African-American youth are 2.1 times more likely to be placed on OYA probation, 3.3 times more likely to be committed to a youth correctional facility, and—prior to the passage of SB 1008—nearly 7 times more likely to be committed to the Department of Corrections (DOC).

Compared to White youth, Native American youth are roughly 3 times more likely to be placed on OYA probation or committed to a youth correctional facility, and 3.4 times as likely to be committed to DOC. Finally, 35% of the youth in OYA secure custody who were committed to DOC are Latinx — a jump of about 60% from their representation in the general population.¹⁴

Q4: Do ability-to-pay processes address racial and economic inequities in juvenile administrative fees?

A4: *Ability-to-pay processes fail to address economic and racial inequities. They are expensive, ineffective, and do not apply to all fees.*

Like most states, Oregon has an “ability-to-pay” mechanism, but such processes do not prevent harm to youth and families, especially youth and families of color. Many families are unaware of ability-to-pay processes or unable to navigate them successfully. Fees are generally imposed post-adjudication when juvenile defenders are no longer involved in the case and are therefore unable to assist with ability-to-pay claims. In fact, most fees are charged to parents who do not have a lawyer to represent them at any stage in the process. Even if families have representation, fees and ability-to-pay processes vary considerably across Oregon’s counties, ensuring geographic disparities in fee assessment and collection.

Notably, ability-to-pay mechanisms do not address underlying racial and economic disparities in the juvenile system. Even if a uniform ability-to-pay process could be developed, fees would still fall more heavily on rural, Black, and Indigenous Oregonians who are overrepresented in the system (see A3 for more details).¹⁵

Finally, not all administrative fees are subject to an ability-to-pay process, like the commonly assessed 28% collection fee imposed on unpaid fines and fees.¹⁶

Q5: How would repeal of juvenile administrative fees impact state and local governments?

A5: *Revenues from juvenile fees are modest and collection costs are substantial, sometimes exceeding revenue.*

County juvenile departments’ fee revenue is dropping, collection costs are rising, and net revenue is low. Among the 11 juvenile departments that provided data, net revenue from juvenile fees was less than \$40,000 in FY 2019 and has declined more than 25% since FY 2017. The counties that provided data on the cost of collections reported a 7% increase in collection costs from FY 2017 to FY 2019, so net revenue will likely continue to decline in the future.

Circuit courts assess far more in fees than they collect each year, and revenue is minimal. For example, in FY 2019, circuit courts imposed approximately \$260,000 in juvenile administrative fees and collected just under \$61,000.¹⁷ In 2018, courts imposed roughly \$457,000 and collected \$88,500.¹⁸ These figures suggest a **juvenile fee collection rate of approximately 20%**.¹⁹ Like county juvenile departments, circuit court fee revenue appears to be dropping each year.²⁰

The Oregon Youth Authority’s collection costs exceeded revenue in 2019. The Department of Child Support spent more than \$3.1 million to collect less than \$3.7 million in OYA fees between FY 2016 and FY 2019.²¹ However, fee revenue dropped by nearly 18% and collection costs rose by more than 20% over the same period.²² As a result, the state of Oregon spent approximately \$866,000 to collect just over \$864,000 in OYA fees in 2019.²³ Net losses will likely grow as costs rise and revenue drops.

Juvenile Administrative Fees in Oregon

NOTES

¹ Sections 419C.446 and 419C.449 of the Oregon Revised Statutes authorize counties to charge a supervision fee.

² Memorandum from Policy Advocacy Clinic, UC Berkeley School of Law, to Amy Miller, Youth, Rights & Justice (Nov. 24, 2020), <https://berkeley.box.com/s/rbzix7agym4zs134ukemvtgsp7gmlccf> (Results from Oregon Juvenile Departments Directors Association Fee Survey).

³ *Id.*

⁴ *Id.* (Clackamas, Columbia, Douglas, Lane, Lincoln, and Multnomah).

⁵ *See id.* (Clatsop, Coos, Crook, Klamath, Tillamook, and Wheeler).

⁶ OR. REV. STAT. §§ 419C.535 (appointed counsel fee), 419C.203, 151.487, 151.505 (indigent contribution amount and indigent attorney's fees), 1.202 (collection fees), 809.267 (license sanction fee); Oregon Chief Justice Order Nos. 04-031 (2004), <https://berkeley.box.com/s/0o34u2lato79vhwkpcylc426adxth5kr> (public defender application fee); 14-066 (2014), <https://berkeley.box.com/s/4g1z6vp1a1zn8m0hn82a5p07utobn5l7> (copies).

⁷ Oregon Circuit Court Juvenile Fees by County, 2017-19 (July 2020), <https://berkeley.app.box.com/file/695251035631>. Gilliam County also has a county court with juvenile jurisdiction that does not report fee collection data to the State Court Administrator but may be charging fees.

⁸ OREGON DEPARTMENT OF JUSTICE CHILD SUPPORT PROGRAM, CHILD SUPPORT INFORMATION RELATED TO OREGON YOUTH AUTHORITY (OYA) (2020), <https://berkeley.box.com/s/opr08vy7q4wqc7rumku7wgg10cyjmi>.

⁹ *See* OREGON DEPARTMENT OF JUSTICE, OREGON CHILD SUPPORT PROGRAM, CHILD SUPPORT INFORMATION RELATED TO OREGON YOUTH AUTHORITY (OYA) (2020), <https://berkeley.box.com/s/opr08vy7q4wqc7rumku7wgg10cyjmi>.

¹⁰ JESSICA FEIERMAN ET AL., JUVENILE LAW CENTER, DEBTORS' PRISON FOR KIDS? THE HIGH COST OF FINES AND FEES IN THE JUVENILE SYSTEM (2016), <https://debtorsprison.jlc.org/documents/JLC-Debtors-Prison.pdf>.

¹¹ Alex R. Piquero & Wesley G. Jennings, Research Note, *Justice System-Imposed Financial Penalties Increase the Likelihood of Recidivism in a Sample of Adolescent Offenders*, 15 YOUTH VIOLENCE & JUV. JUST. 325 (2016), <https://debtorsprison.jlc.org/documents/JLC-Debtors-Prison-criminology-study-2016.pdf>.

¹² POLICY ADVOCACY CLINIC, BERKELEY LAW, UNIVERSITY OF CALIFORNIA, MAKING FAMILIES PAY: THE HARMFUL, UNLAWFUL, AND COSTLY PRACTICE OF CHARGING JUVENILE ADMINISTRATIVE FEES IN CALIFORNIA (2017), https://www.law.berkeley.edu/wp-content/uploads/2019/10/SB-190-Implementation-Report11_10_31_19.pdf. A subsequent study by UC Berkeley found that juvenile fee repeal in California relieved families from the burden of paying hundreds of millions of dollars in previously assessed fees. POLICY ADVOCACY CLINIC, BERKELEY LAW, UNIVERSITY OF CALIFORNIA, FEE ABOLITION AND THE PROMISE OF DEBT-FREE JUSTICE FOR YOUNG PEOPLE AND THEIR FAMILIES IN CALIFORNIA 1, 7 (2019), https://www.law.berkeley.edu/wp-content/uploads/2019/10/SB-190-Implementation-Report11_10_31_19.pdf.

¹³ LESLIE PAIK & CHIARA PACKARD, IMPACT OF JUVENILE JUSTICE FINES AND FEES ON FAMILY LIFE: CASE STUDY IN DANE COUNTY, WI (2019), <https://debtorsprison.jlc.org/documents/JLC-Debtors-Prison-dane-county.pdf>.

¹⁴ *SEE* JULIE NEBURKA, ANALYSIS: OREGON YOUTH AUTHORITY DIVERSITY, EQUITY, AND INCLUSION REPORT 2 (2020), <https://olis.leg.state.or.us/liz/2020R1/Downloads/CommitteeMeetingDocument/214577>. Overrepresentation extends beyond race: queer young people make up 9% of the OYA population as opposed to 5-7% of the national youth population. *Id.* Multnomah County's Black youth are almost seven times more likely than White youth to be referred to juvenile court following an arrest. JUVENILE JUSTICE INFORMATION SYSTEM, RACIAL AND ETHNIC DISPARITIES RELATIVE RATE INDEX (RRI), MULTNOMAH COUNTY (2018), <https://www.oregon.gov/oia/jjis/Reports/2018MultnomahRRI.pdf>. For a discussion of the disparities in juvenile punishment and access to resources in Eastern Oregon, see Written Testimony by Molly Rogers, Director, Wasco County Department of Youth Services, and Chair, Central and Eastern Oregon Juvenile Justice Consortium, to the Joint Committee on Ways & Means, Subcommittee on Public Safety (Mar. 6, 2019), <https://olis.leg.state.or.us/liz/2019R1/Downloads/CommitteeMeetingDocument/170849> (related to S.B. 5441 Exh. 25, Reg. Sess. (2019) (enacted)).

¹⁵ The ability-to-pay process itself invokes racial biases, does not reduce financial costs as much as it should, and requires invasive inquiries. Theresa Zhen, *(Color)Blind Reform: How Ability-to-Pay Determinations Are Inadequate to Transform a Racialized System of Penal Debt*, 43 N.Y.U. REV. L. & SOC. CHANGE 177 (2019). Zhen also points out that the financial interests of the court or institution making the ultimate determination favors overestimating a person's ability to pay. *Id.* at 209.

¹⁶ *See* OR. REV. STAT. § 1.202; *see also State v. Ciraulo*, 301 Or. App. 849 (2020) (holding that failure to give a defendant a payment plan as required by statute, and not failure to assess ability to pay, could be reversible error).

Juvenile Administrative Fees in Oregon

¹⁷ UC Berkeley Policy Advocacy Clinic, Total Oregon Circuit Court Juvenile Fees & Fees Assessed and Collected (July 2020), <https://berkeley.box.com/s/4eg724oy5xhbmicwvrlv8n8fmyofwgxe> (view "Fees" tab).

¹⁸ *Id.*

¹⁹ The SCA stated that they could not disaggregate the amount spent on collecting fees in delinquency cases from the cost of collecting fees in adult cases. As noted in the text, SCA collection rates are approximately 20%.

²⁰ Most of the money collected by circuit courts goes to the general fund, but some goes to the Criminal Fine Account. *See, e.g.*, OR. REV. STAT. §§ 1.202 (ordering collection fees be paid to the general fund); 813.240 (ordering diversion fees be paid to the criminal fine account).

²¹ *See* OREGON DEPARTMENT OF JUSTICE, OREGON CHILD SUPPORT PROGRAM, CHILD SUPPORT INFORMATION RELATED TO OREGON YOUTH AUTHORITY (OYA) (2020), <https://berkeley.box.com/s/oprz08vy7q4wcq7rumku7wgg!0cjyimi>.

²² *Id.*

²³ *Id.*

FOR IMMEDIATE RELEASE
September 8, 2020

National Juvenile Defender Center Releases Assessment of Oregon's System of Providing Lawyers for Youth

WASHINGTON, DC — The National Juvenile Defender Center (NJDC) today released [Advancing Youth Justice: An Assessment of Access to and Quality of Juvenile Defense Counsel in Oregon](#).

The assessment found that while Oregon's public defense system has adopted minimum qualifications and best practices for attorneys representing young people in delinquency cases, an absence of meaningful oversight and enforcement has left some youth defenseless in juvenile court. Some of the key findings and recommendations relate to youth being unrepresented during interrogation, minimal advocacy to address racial disparities, infrequent challenges to assessment of fees and costs, and minimal access to counsel after disposition.

"While Oregon has many elements of an effective public defense system in place, we found that too often, the strength of representation a young person receives depends upon where they live in the state," said NJDC Executive Director Mary Ann Scali. "We met with many dedicated advocates and leaders who agree the juvenile defense system should provide training and support to ensure defenders meet with their youth clients as early as possible, advance racial justice, and remain involved in post-disposition advocacy to address issues like the assessment of debilitating fees and costs."

In Oregon, Black youth are more than 2.5 times and Native youth are more than 1.5 times more likely to be referred to the Juvenile Department than white youth; Native youth are held in secure detention at nearly twice the rate of white youth; Black and Native youth are more than 2.5 times more likely to be sentenced to secure correctional facilities than white youth; and Black youth are 4.5 times and Hispanic youth are 2.5 times more likely to be transferred to adult court than white youth. NJDC's report highlights the racial disparities that exist at every decision point in the juvenile court process and calls for juvenile defenders and all juvenile court stakeholders to fight against systematic disparate treatment of youth of color.

"I agree with the findings in this report that we need to continue to take steps to ensure justice for children," said Oregon Chief Justice Martha Walters. "The Judicial Branch's two-year Strategic Campaign, issued in January 2020, includes a commitment to address many of the concerns noted in the report, and we intend to work with the legislature to accomplish our mutual goals. If we are fair and consistent in how we treat children, we will be better able to set them on the right course early in their lives, and we will improve their chances of becoming responsible and productive participants in their communities when they become adults."

The assessment found that Oregon is one of just eight states that has no uniform, comprehensive guidance for procedure in delinquency proceedings. The report recommends establishing uniform

mandates for court procedure to reduce the risk of geographic inequities in justice that thrive when local policies and court procedure vary from county to county.

“She who controls procedure controls justice,” noted Oregon Court of Appeals Chief Judge James C. Egan. “Statewide juvenile court procedures could help address deficiencies in post-disposition representation.”

The report addresses a range of barriers to due process and includes recommendations for actions that state and local leaders can take to improve the quality of juvenile defense.

“The Office of Public Defense Services (OPDS) is grateful for NJDC’s in-depth assessment of Oregon’s juvenile defense system and a detailed roadmap for how we can improve meaningful access to counsel for all Oregonian youth,” said Keren Farkas, Manager of the Office of Public Defense Services’ Parent-Child Representation Program. “We look forward to using this report to guide our work with partners and legislators to build and fund a system that centers compassion, empathy, and an understanding of the distinct needs of young people and the impact legal system involvement has on youth development.”

NJDC’s assessments, part of a nationwide effort to strengthen juvenile defense advocacy, are comprehensive examinations of the systemic and institutional components necessary to ensure young people have high-quality legal representation. Assessment findings are based upon interviews, court observations, and research by a team of experts who analyzed Oregon’s juvenile defense systems and delinquency courts over the period of a year.

The Oregon report is the 27th state assessment NJDC has released. One additional state assessment is underway and scheduled for release in upcoming months. All of NJDC’s state assessments can be found [online](#).

For more information, please contact:

Mary Ann Scali, Executive Director
mscali@njdc.info; 202-452-0010 ext. 102

*The racial disparities data cited in this release can be found the Oregon Youth Development Council policy brief, “Juvenile Justice: Equity Considerations,” available at: http://www.oregonyouthdevelopmentcouncil.org/wp-content/uploads/2016/09/Juvenile-Justice_Equity-Considerations-Venngage-Policy-Brief.pdf

###

The National Juvenile Defender Center (NJDC) is a nonprofit organization dedicated to promoting justice for all children by ensuring excellence in juvenile defense. Through community building, training, and policy reform, we provide national leadership on juvenile defense issues with a focus on curbing the deprivation of young people’s rights in the court system.



The Negative Effect of Fines and Fees in Juvenile Justice

on March 5, 2020



By Amy Miller | YRJ Executive Director

“...Fines and fees in the juvenile justice system harm youth and their families. They also undermine public safety and contribute to racial disparities in the justice system.”¹

In *A Debtor’s Prison*, the Juvenile Law Center of Philadelphia analyzed the impact of costs, fines, fees, and restitution on youth: the significant consequences for failure to pay, the resulting financial stress on youth and their families, and the exacerbation of racial and economic disparities in the juvenile justice system. As part of the report, Juvenile Law Center reviewed statutes in all 50 states, conducted national surveys of system stakeholders, and interviewed families and young adults who had experiences with the juvenile justice system. The result of this large-scale project is simple: costs were regularly imposed and they posed significant problems for youth and families.²

The report identified seven different types of legal financial obligations that relate to the prosecution and rehabilitation of youth offenders: probation/supervision fees, fees for informal adjudication or diversion, fees for evaluation or testing, fees for the cost of care (including child support, placement, programming, health care and other support), court costs and fees, fines,

fees in expungement/sealing of records, and restitution. When compared nationally, Oregon ranks high in terms of the number of different categories in which fees are imposed. The median number of categories in which fees are imposed is five, with 34 states imposing fees in five categories or fewer. Oregon joins 16 states in imposing fees in six of the seven categories.³

While costs, fines, fees, and restitution may be burdensome when imposed individually, when considered cumulatively they can be overwhelming to financially-stressed youth and families. Even seemingly minimal payments may require families to choose between meeting basic needs and paying fees. According to an Advisory issued by the US Department of Justice, “Families burdened by these obligations may face a difficult choice, either paying juvenile justice debts or paying for food, clothing, shelter, or other necessities. The cost of fines and fees may foreclose educational opportunities for system-involved youth or other family members. When children and their families are unable to pay fines and fees, the children often suffer escalating negative consequences from the justice system that may follow them well into adulthood.”⁴

Judges also recognize the harms and hardships posed by fees, fines, costs, and restitution orders. To ensure youth are not criminalized for poverty, the National Council of Juvenile and Family Court Judges created a bench card to guide judges in addressing financial assessments within the courtroom. Central to the guide is ensuring that financial obligations are conditioned on the youth’s ability to pay. Additionally, the guide warns of unintended consequences tied to imposition of fees. For example, probation supervision fees raise concerns about fundamental fairness and due process that may be counterproductive. Court costs create the impression of the court as a collection agency rather than a neutral arbiter and may erode the sense that the court is impartial and fair.⁵

Earlier this year, the U.S. Supreme Court addressed the issue of fines and fees in *Indiana v Timbs*, 586 U.S. ____ (2019). The issue in the case was whether the Constitution’s ban on excessive fines—part of the 8th amendment that was originally interpreted to apply to the federal government—applies to the states. In the case, Timbs pleaded guilty to drug charges and was sentenced to a year of home detention and five years of probation. The state court also forced Timbs to forfeit his \$42,000 Land Rover on the theory that it was used to transport drugs. Timbs challenged the forfeiture as a violation of the 8th Amendment’s ban on excessive fines because it was worth four times more than the maximum fine that the state could impose, and therefore the forfeiture was completely disproportional to the gravity of Timbs’ crimes. A unanimous Supreme Court agreed with Timbs, holding that the Constitutional ban on excessive fines applies to the states through the 14th Amendment.⁶

Although Timbs was an adult at the time of his conviction, the Court’s decision is a significant step forward for youth in the juvenile justice system. Ginsburg’s opinion highlights excessive fines as a tool of racial subjugation. The opinion points to the Black Codes enacted in the post-Civil War South as a tool to maintain prewar racial hierarchy through the imposition of “draconian fines” that often demanded involuntary labor from newly freed slaves who were unable to pay imposed fines.⁷

The focus on racial equity is front and center in today’s efforts to end the practice of imposing fines and fees on poor youth and their families. In Oregon, youth of color are disproportionately represented in Oregon’s Juvenile Justice System at all points of contact, from referral to juvenile departments by law enforcement, to placement in secure Oregon Youth Authority (OYA) facilities.⁸ And because youth of color are punished more often and more harshly, they and their families are liable for higher fee burdens.

Practice tip: Oregon’s juvenile code requires that the court, before imposing fines and fees, takes into account the youth’s ability pay the fines or fees and the rehabilitative effect of the fine. ORS 419C.449 (2018). ORS 419C.459 (2018). See also ORS 137.286 Attorneys should present evidence regarding these issues at the time of disposition.

Footnotes

1 Feerman, Goldstein, Haney-Caron, and Columbo, *Debtors’ Prison for Kids? The High Cost of Fines and Fees in the Juvenile Justice System*, Juvenile Law Center of Philadelphia (2016).

2 *Id.* at 4.

3 *Id.* at (i), excluding fees for expunction/sealing of records.

4 U.S. Dep’t of Justice, *Advisory for Recipients of Financial Assistance from the U.S. Department of Justice on Levying Fines and Fees on Juveniles* (2017).

5 National Council of Juvenile and Family Court Judges, State Justice Initiative., National Juvenile Defender Center, *Ensuring Young People are not Criminalized for Poverty* (2018), https://njdc.info/wp-content/uploads/2018/04/Bail-Fines-and-Fees-Bench-Card_Final.pdf.

6 *Timbs*, 586 US ____ (2019) at 7.

7 *Id.* at 6.

8 Oregon Youth Development Policy Brief, http://www.oregonyouthdevelopmentcouncil.org/wp-content/uploads/2016/09/Juvenile-Justice_Equity-Considerations-Vennage-Policy-Brief.pdf.

Executive Summary

National attention has recently turned towards fines and fees in the criminal justice system and the ways in which these legal financial obligations further exacerbate poverty and racial inequality. People involved in the justice system across the country often face many challenges due to their involvement in court, including burdensome fees. Many families find it difficult to pay these bills, leading to a cycle of debt and financial struggle. Most of this attention to fines and fees, however, has focused on the adult system, whereas little attention has been given to parents and youth involved in the juvenile justice system who face similar financial obligations. Charges to youth who commit crimes are complicated by the fact that youth often do not have the financial means to pay. Parents are often left with the financial burden of these fines and fees even though they did not commit any crime.

This report presents selected findings from a study on fines and fees in the juvenile justice system in Dane County, Wisconsin as part of an on-going collaborative project with Juvenile Law Center. Drawing on interviews with 20 parents and their children conducted in July-September 2018, we explore how parents and youth experience and perceive fines and fees. Drawing on 10 additional interviews of victims eligible for restitution for crimes committed by youth, we also explore victims' experiences with restitution and their views on this particular financial obligation for youth. Parents in Dane County can face many different charges for their child's involvement in court, ranging from \$130/night for stays in the Juvenile Detention Center^a to \$240 for a Public Defender in a misdemeanor case. Of the parents we interviewed, the average amount of money charged is \$1,796. Youth can also be charged up to a maximum of \$1,000 for victim restitution.

This report focuses not only on the specific fines and fees and respective amounts that parents and youth are asked to pay, but also the impact of Legal Financial Obligations (LFOs) on their family life. Our research reveals that these charges impose a significant financial burden on families. We also explore how participants view potential and actual alternatives to LFOs.

In the following pages, we bring forward the voices of youth, parents, and victims to share their experiences. Here, we summarize two main findings that emerged in these interviews:

1. **Impact of Fines and Fees on Family Life:** The stories families tell of their experiences with LFOs illustrate the negative impact of these financial bills, which can outweigh any potential of them to instill responsibility in youth. The LFOs have significant negative impact on family life, in material and emotional ways. Parents discuss the psychological toll of these LFOs and the resulting impact on the quality of their relationships with their youths. They also talk about the overall impact on their household, including their other children. In addition to this effect on their family dynamics, families discussed the financial and nonfinancial consequences for not paying LFOs. Those included the state seizing their tax refunds, sending their bill to collections, suspending driver's licenses, as well as

^a This particular fee has recently been abolished as of January 2019. There is a pending bill to make this change retroactive.

increased justice involvement for the youth and potential new court involvement for the parents.

2. **Viable Alternatives to Restitution:** Through private nonprofit agencies, youth in Dane County sometimes have the option of doing community service to start paying for the restitution they owe to victims. While interview participants generally supported community service as an alternative to paying restitution, they also expressed concerns about the types and number of hours of community service needed to complete this process. Moreover, their views on other alternatives, such as writing a letter of apology or meeting with the victim of the crime, were mixed.

Given these findings, we recommend two policy reforms:

1. Abolish all fines and fees

Our findings support other research that advocates for abolishing all fines and fees in the juvenile justice system. There is no therapeutic or deterrent effect of these fines and fees, nor do they teach youths responsibility. Moreover, the youths often have no reasonable way to pay these fines; their parents are not able to do so either. The LFOs also have significant material and emotional impacts on the family, affecting their interpersonal dynamics and household stability.

2. Revise how community service is used as an alternative to restitution

Even with the caps to restitution amounts, the process of paying restitution can be quite complicated. As such, it would be wise to reconsider the ways that the youths can work off restitution. Any option considered should also recognize the non-financial impacts of the crime on the victims.

In sum, there is much more to the story than simply saying families are not paying LFOs because they cannot afford it or that offering alternatives like community service or letters of apology would be viable options. To truly reform this system requires more careful attention to how each local jurisdiction imposes the LFOs and how families and victims experience that process.

Research Note: Justice System–Imposed Financial Penalties Increase the Likelihood of Recidivism in a Sample of Adolescent Offenders

Youth Violence and Juvenile Justice
1-16

© The Author(s) 2016

Reprints and permission:

sagepub.com/journalsPermissions.nav

DOI: 10.1177/1541204016669213

yvj.sagepub.com



Alex R. Piquero¹ and Wesley G. Jennings²

Abstract

Although the use of financial penalties is pervasive in the justice system, there has been limited (and mostly dated) empirical research that has investigated the effect of financial costs incurred by juvenile offenders and the extent to which such costs relate to the likelihood of recidivism and reintegration into society. This study uses data from a large cohort of adolescent offenders to examine how demographics and case characteristics relate to financial penalties imposed by the justice system and the degree to which such monetary penalties are related to recidivism in a 2-year follow-up. Results suggest that financial penalties increase the likelihood of recidivism. Study limitations and directions for future research are also discussed.

Keywords

juveniles, delinquency, recidivism, restitution, costs, fines, fees

There are a wide range of criminal punishments available to judges and juries when it comes to sanctioning an offender for their transgression(s), the most common of which is probation, with other options including imprisonment and other community correction alternatives (boot camps, intensive supervision, etc.; see Morris & Tonry, 1990). One type of punishment that is also used is that of a fine, a punishment that has been around for several centuries (e.g., Beccaria, 1764/1986; Ruback & Bergstrom, 2006). One would suspect, then, that knowledge about the effect of fines on subsequent reoffending, or recidivism, would be as commonplace as are recidivism-based investigations for the more widely used punishments. Unfortunately, with a few exceptions (Albrecht & Johnson, 1980; Glaser & Gordon, 1988; MacDonald, Greene, & Worzella, 1992) that is not the case, as much of the research surrounding fines has been administrative or process based (cf. Hillsman,

¹ Program in Criminology, University of Texas at Dallas, Richardson, TX, USA

² University of South Florida, Tampa, FL, USA

Corresponding Author:

Alex R. Piquero, Program in Criminology, University of Texas at Dallas, 800 W. Campbell Rd., GR31, Richardson, TX 75080, USA.

Email: apiquero@utdallas.edu

Exploitative Revenues, Law Enforcement, and the Quality of Government Service

Urban Affairs Review
2020, Vol. 56(1) 5–31
© The Author(s) 2018
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/1078087418791775
journals.sagepub.com/home/uar



Rebecca Goldstein¹, Michael W. Sances²,
and Hye Young You³

Abstract

A growing body of evidence indicates that local police departments are being used to provide revenue for municipalities by imposing and collecting fees, fines, and asset forfeitures. We examine whether revenue collection activities compromise the criminal investigation functions of local police departments. We find that police departments in cities that collect a greater share of their revenue from fees solve violent and property crimes at significantly lower rates. The effect on violent crime clearance is more salient in smaller cities where police officers' assignments tend not to be highly specialized. We find that this relationship is robust to a variety of empirical strategies, including instrumenting for fines revenue using commuting time. Our results suggest that institutional changes—such as decreasing municipal government reliance on fines and fees for revenue—are important for changing police behavior and improving the provision of public safety.

Keywords

policing, local public finance, law enforcement and public safety, crime

¹Harvard University, Cambridge, MA, USA

²University of Memphis, Memphis, TN, USA

³New York University, New York, NY, USA

Corresponding Author:

Hye Young You, New York University, 19 West 4th Street, #224, New York, NY 10012, USA.

Email: hyou@nyu.edu

Recent high-profile tensions between Black citizens and police officers in the United States have led to protests and calls for reforms. The ensuing popular and scholarly discussion of inequality in police practices has been focused, for the most part, on individual police officers' implicit bias or lack of appropriate training.¹ Comparatively less attention has been paid to police departments' institutional structures and incentives, even though these characteristics have been shown to significantly influence police behavior (Fung 2003; Kantor, Kitchens, and Pawlowski 2017; Luna 2003; Maguire and Uchida 2000; Willis, Mastrofski, and Weisburd 2007).

One aspect of recent criticism of police departments has been centered on the aggressive imposition and collection of fees, fines, and civilly forfeited assets (Harris, Evans, and Beckett 2010). The Department of Justice's (DOJ) investigation of the Ferguson, Missouri, police department revealed that a key driver of the behavior of the Ferguson police was the desire to generate municipal revenue by issuing traffic tickets and imposing fees.² Scholarly evidence indicates the practices unearthed in Ferguson are by no means unique. Census of Governments data from 2012 show that about 80% of American cities with law enforcement institutions derive at least some revenue from fees, fines, and asset forfeitures, with about 6% of cities collecting more than 10% of their revenues this way in 2012 (Sances and You 2017). Implementing this practice requires close coordination between governing bodies, such as mayors and city councils, and local police forces, as the DOJ's Ferguson report vividly describes.³

If police agencies keep a substantial fraction of revenues from fines and fees, they could be augmenting their own budgets through fee and fine enforcement. In practice, revenue from fines and fees is typically contributed directly to the municipal budget, not the police budget, meaning that direct financial incentives for police departments to collect revenue may be weak. But police forces are also the agents of local governments: Local police chiefs are appointed by the city executive (mayor or city manager), and must respond to city politicians (Chaney and Saltzstein 1998; Ostrom and Whitaker 1973; Williams 1984; Wilson 1968). This means that the police in some cities are under significant pressure from city authorities to raise city funds. Given that local police offices have limited resources, and that police officers have broad discretion to focus on any of a wide variety of activities (Brown 1981; Lipsky 1980; Wilson 1968), a focus on revenue-generating activities may distract police departments from their primary duty of providing public safety. Although political scientists know little about how police departments respond to institutional incentives (Gottschalk 2008), a recent study shows that police officers are highly responsive to managerial directives (Mummolo 2018), which suggests that at least in some cases, political pressure on police leadership can translate into officer behavior.

RESOLUTION ADDRESSING FINES, FEES, AND COSTS IN JUVENILE COURTS

WHEREAS, NCJFCJ recognizes that each child under court jurisdiction is unique, valued and entitled to individualized attention; and

WHEREAS, juvenile and family court judges are responsible for ensuring the safety and well-being of children under court jurisdiction while holding them accountable in developmentally appropriate ways; and

WHEREAS, several hundred thousand delinquency cases are handled by juvenile and family courts annually; and

WHEREAS, juvenile and family court judges routinely impose financial obligations on youth and their families for court-related activities including appointment of counsel fees, bail, diversion and treatment program fees, community supervision and placement fees, court costs, and restitution, frequently without consideration for each individual youth's ability to pay; and

WHEREAS, the court's financial gains as a result of the collection of fines, fees, and costs are often diminished when accounting for the administrative costs associated with collection efforts; and

WHEREAS, the failure to pay can result in serious and long-term consequences for youth and families including further penetration into the juvenile justice system, increased recidivism, difficulty engaging in education and employment opportunities, civil judgements resulting in wage garnishments, exacerbation of existing racial and ethnic disparities and increased financial burdens for impoverished families, all for reasons unrelated to public safety and counterproductive to the rehabilitative aims of the juvenile court; and

WHEREAS, impoverished youth and families may face harsher consequences than their affluent peers because of their inability to pay; and

WHEREAS, numerous professional organizations including the American Bar Association, National Juvenile Defender Center, the Juvenile Law Center, and Conference of Chief Justices/Conference of State Court Administrators have recognized the negative consequences of imposing fines and fees without regard for one's ability to pay and issued guidance on the imposition of juvenile justice related fines, fees, and costs; and

WHEREAS, a growing number of state and local jurisdictions have reduced or eliminated various fines, fees, or costs in consideration of the impact of these financial burdens on youth and families; and

WHEREAS, juvenile and family court judges are uniquely positioned to reduce or eliminate the hardships associated with fines, fees, and costs; and

NOW, THEREFORE, BE IT RESOLVED:

The NCJFCJ recognizes the critical role of the judge and judicial leadership as it applies to the imposition of juvenile court fines, fees, and costs.

The NCJFCJ encourages courts to work towards reducing and eliminating fines, fees, and costs by considering a youth and their family's ability to pay prior to imposing such financial obligations.

The NCJFCJ believes that the core functions necessary for our nation's juvenile courts to meet their rehabilitative goals should be fully funded by governmental revenue and not by revenue generated by fines, fees, and costs. Revenue generated from fines, fees, and costs should never be used for salaries or benefits of official judicial branch employees or operations nor should the revenue be used to evaluate the performance of such employees.

The NCJFCJ encourages courts to presume youth indigent when making decisions regarding the imposition of fines, fees, and costs if the youth was previously determined indigent for the purpose of securing attorney representation.

The NCJFCJ recommends that no court should detain or order youth to out-of-home placement or extend community supervision solely because of lack of payment of fines, fees, or costs.

The NCJFCJ recognizes that court fines, fees, and costs may have a disproportionate impact on poor communities and racial or ethnic minorities and supports the adoption of court policies and practices that promote fairness and equal treatment for all youth and their families.

The NCJFCJ recommends juvenile and family courts collect detailed data on the imposition and collection of fines, fees, and costs, study their effects on youth, families, and courts and demonstrate transparency by making data publicly available.

The NCJFCJ supports the imposition of reasonable restitution after considering a youth's ability to pay and encourages courts to provide opportunities for youth to repay restitution through meaningful community service.

The NCJFCJ supports the use of payment plans in those cases in which fines, costs, or fees are levied.

The NCJFCJ supports continued education for judges and court staff related to constitutional, legal and procedural principles of imposing fines, fees, and costs on youth and their families.

DEBTORS' PRISON FOR KIDS?

The High Cost of Fines and Fees in the Juvenile Justice System

By Jessica Feierman with Naomi Goldstein, Emily Haney-Caron and Jaymes Fairfax Columbo

EXECUTIVE SUMMARY

While much is now known about the financial burdens imposed on individuals and families by the assessment of costs, fines, fees, and restitution in the adult criminal justice system, there has been scant attention paid to this issue in the juvenile justice system. To address this gap, with the support of the Laura and John Arnold Foundation, Juvenile Law Center : 1) reviewed statutes in all 50 states and the District of Columbia to assess the legal framework for financial obligations placed on youth in the juvenile justice system and their families; 2) conducted a national survey of lawyers, other professionals, adults with previous juvenile justice involvement, and families to collect information about local practices;¹ 3) interviewed attorneys and young adults who had experiences with the juvenile justice system to further understand how cost of justice issues play out in practice; and 4) solicited a study by criminologists Alex Piquero and Wesley Jennings, who examined the connection between costs and recidivism, and the implications for racial disparities in the juvenile justice system.

As in the criminal justice system, the imposition of costs and fees in the juvenile justice system is widespread across the country. Approximately one million youth appear in juvenile court each year. Costs, fees, fines, or restitution are imposed in every state. **These financial penalties increase recidivism, push impoverished young people deeper into the juvenile justice system, exacerbate racial disparities in the juvenile justice system, and heighten economic and emotional distress for families already struggling financially.**

The chart below identifies the types of financial obligations imposed and the results of our statutory review and stakeholder survey. In some cases, costs are imposed locally even when there is no applicable state statute. In a forthcoming report, we will consider the additional costs that are imposed when indigent youth are required to pay for counsel.

¹ We received responses from 183 individuals in 41 states; in each of these states, respondents reported the imposition of costs, fines, fees or restitution, and harms to youth or families as a result.

NATIONAL OVERVIEW OF COSTS IMPOSED

TYPE OF COST	STATES WITH A STATUTE AUTHORIZING OR REQUIRING THE COST	STATES WITH PRACTICE OF IMPOSING COSTS (BASED ON SURVEY RESULTS FROM 41 STATES)
Court costs	25	28
Evaluation and Testing	32	26
Probation and Supervision	21	18
Diversion	22	26
Cost of Care	47	31
Fines	43	29
Expungement	11	20
Restitution	50+DC	All

The inability to pay costs, fines, fees, or restitution often results in harsh legal consequences and contributes to financial stress and family tension. In the 41 states with survey respondents, participants widely affirmed that youth experience these consequences for failure to pay:

- Case remained open longer (33 states²)
- Youth was sent to juvenile justice placement (26 states)
- Youth remained in juvenile placement longer than he/she otherwise would have (26 states)
- Additional court visits, leading to missed school or missed work (34 states)
- Inability to get records expunged (24 states)
- Civil judgment imposed (25 states)
- Formal petition filed for failure to pay diversion costs (15 states)

Additionally, respondents in 31 states reported that families took on debt in order to pay their juvenile justice-related financial obligations.

² For each consequence, at least one survey respondent in this many states reported the designated consequence. More often, numerous respondents in each state reported the designated consequence.

Our statutory research also revealed significant consequences that we had not posed as survey questions, but which we believe are also widely imposed and require further study. These include:

- Probation extended
- Probation revoked
- Driver's license revoked, suspended, or child barred from applying for license
- Arrest warrants issued
- Child deprived of needed treatment
- Youth or parents held in civil or criminal contempt
- Interest fees, collection fees, or other additional fees or fines for failure to pay

Until now, almost no empirical research has investigated the effect of financial costs imposed on juvenile offenders and the extent to which such costs contribute to recidivism or their potential impact on racial disparities in the juvenile justice system. Criminologists Alex Piquero and Wesley Jennings used data from a cohort of 1,167 adolescent offenders in Allegheny County, Pennsylvania to examine 1) how demographics and case characteristics relate to financial penalties imposed by the justice system and 2) the degree to which such monetary penalties are related to recidivism in a two-year follow-up.

Their analysis showed that financial penalties in general—and the sheer amount of financial penalties in particular—significantly increased the likelihood of recidivism, even after controlling for relevant demographics and case characteristics. They also concluded that owing costs upon case closing is significantly related to recidivism. Their analysis suggests that cost and fee policies may contribute to racial disparities in the juvenile justice system as children of color are more likely to owe costs upon case closing relative to their white peers. Moreover, 94% of youth in their sample—over 1,000 youth in just one county—owed costs, fines, fees, or restitution.

While this report focuses on a problem—the imposition of costs on youth and families who cannot afford to pay—it also highlights solutions and identifies jurisdictions that are changing their local or state policies to ensure that the youth are not punished for poverty.

MAKING FAMILIES PAY

THE HARMFUL, UNLAWFUL, AND COSTLY PRACTICE OF
CHARGING JUVENILE ADMINISTRATIVE FEES IN CALIFORNIA



MARCH 2017

BerkeleyLaw
UNIVERSITY OF CALIFORNIA

Policy Advocacy Clinic

EXECUTIVE SUMMARY

IN THE WAKE OF TRAGEDIES in cities like Ferguson, Missouri, national attention is focused on the regressive and racially discriminatory practice of charging fines and fees to people in the criminal justice system. People of color are overrepresented at every stage in the criminal justice system, even when controlling for alleged criminal behavior. Racially disproportionate treatment in the system leaves people of color with significantly more criminal justice debt, including burdensome administrative fees.

While regressive and discriminatory criminal justice fees have been described and critiqued in the adult system, the issue has received very little attention in the juvenile system. Nevertheless, families with youth in the juvenile system are charged similar fees, which significantly undermine the system's rehabilitative goals. The harmful practice of charging poor people for their interaction with the criminal justice system is not limited to places like Ferguson, Missouri. California, too, makes families pay for their children's involvement in the juvenile system.

This report presents findings about the practice of assessing and collecting administrative fees from families with youth in the California juvenile system. We use the term "administrative fees" to describe the charges imposed by local jurisdictions on families for their child's involvement in the juvenile system. State law permits counties to charge administrative fees for legal representation, detention, and probation, but only to families with the ability to pay. Most counties in California charge these administrative fees, imposing millions of dollars of debt on families with youth in the juvenile system.

Our research over the last three years reveals that juvenile administrative fees undermine the rehabilitative purpose of the juvenile system. Counties charge these fees to families already struggling to maintain economic and social stability. Fee debt becomes a civil judgment upon assessment. If families do not pay the fees, counties refer the debt to the state Franchise Tax Board, which garnishes parents' wages and intercepts their tax refunds. Under state law, these fees are meant to help protect the fiscal integrity of counties. They are not supposed to be retributive (to punish the family), rehabilitative (to help the youth) or restorative (to repay victims).

This report details our findings on juvenile fees in California, but we summarize them here:

HARMFUL: Juvenile administrative fees cause financial hardship to families, weaken family ties, and undermine family reunification. Because Black and Latino youth are overrepresented and overpunished relative to White youth in the juvenile system, families of color bear a disproportionate burden of the fees. Criminologists recently found that juvenile debt correlates with a greater likelihood of recidi-

vism, even after controlling for case characteristics and youth demographics. These negative outcomes from fees undermine the rehabilitative purpose of the juvenile system.

UNLAWFUL: Some counties charge juvenile administrative fees to families in violation of state law, including fees that are not authorized in the juvenile setting, fees that exceed statutory maximums, and fees for youth who are found not guilty. Some counties violate federal law by charging families to feed their children while seeking reimbursement for the same meals from national breakfast and lunch programs. Further, counties engage in fee practices that may violate the state Constitution by depriving families of due process of law through inadequate ability to pay determinations and by denying families equal protection of the law in charging certain fees.

COSTLY: Counties are authorized to charge families for juvenile administrative fees to pay for the care and supervision of their children. Yet counties net little revenue from the fees. Because of the high costs and low returns associated with trying to collect fees from low-income families, most of the fee revenue pays for collection activities, not for the care and supervision of youth. Further, the fee debt can cause families to spend less on positive social goods, such as education and preventative health-care, which imposes long term costs on families, communities, and society by prolonging and exacerbating poverty.

Based on our findings, fixing the system is not an option. Charging administrative fees to families with youth in the juvenile system does not serve rehabilitative purposes. Other mechanisms in the system punish youth for their mistakes and address the needs of victims. Further, we did not find a single county in which fee practices were both fair and cost-effective. Counties either improperly charge low-income families and net little revenue, or they fairly assess families' inability to pay and net even less. Counties that have recently considered the overall harm, lawfulness, and costs of juvenile administrative fees have all ended the practice.

In light of our findings, we make the following recommendations to policymakers:

RECOMMENDATIONS

1. To end their harmful impact on youth and families, the state should repeal laws that permit the assessment and collection of juvenile administrative fees.
2. To redress unlawful practices, counties should reimburse families for all payments they made on improperly charged juvenile administrative fees.
3. To understand the consequences of costly practices like juvenile administrative fees, the state and counties should collect and maintain better data in the juvenile system.