

Justice System Imposed Financial Penalties Increase the Likelihood of Recidivism in a Sample of Adolescent Offenders

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Abstract

The use of financial penalties as part of the sanctioning process has long been a part of the American justice system. Much of the research in this area has tended to be administrative and processual, i.e., how fines are administered, how they work, with less research focused on the extent to which financial penalties relate to recidivism in some way shape or fashion. More importantly, there has been almost no 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 eventual reintegration into society. The current study uses data from a large 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. Results suggest that financial penalties in general and the sheer amount of financial penalties in particular significantly increase the likelihood of recidivism, even after controlling for relevant demographics and case characteristics. Subsequent analysis revealed that there are certain dollar amount thresholds where payment in full upon case closing is not likely for a majority of youth, and that these thresholds vary depending on youths aged 12-13, 14-17, and 18-21. Policy implications and study limitations are also discussed.

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

Introduction

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; Ruback & Bergstrom, 2006). One would suspect, then, that knowledge about the effect of fines on subsequent re-offending, 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 et al., 1992) that is not the case, as much of the research surrounding fines has been administrative or process-based (cf. Hillsman, 1990) and seems to be more focused on the extent to which the use of monetary penalties disproportionately impacts poor defendants because of their general inability to pay (Council of Economic Advisers, 2015; Beckett et al., 2008). Still, even in the handful of studies that have examined the relationship between fines and recidivism the results have been mixed.

There are also other types of ‘costs’ that could be incurred by a sanctioned offender, such as legal financial obligations to include “fees (cost assessments, surcharges, and interest), fines, and restitution orders that are imposed by courts and other criminal justice agencies on persons accused of crimes” (Beckett & Harris, 2011, p. 509). According to the Council of Economic Advisers (2015, p.1), fines “are monetary punishments for infractions, misdemeanors, or felonies [and] are intended to deter crime, punish offenders, and compensate victims for losses.” On the other hand, fees “are itemized payments for court activities, supervision, or incarceration charged

to defendants determined guilty of infractions, misdemeanors or felonies. Fee collections are intended to support operational costs in the criminal justice system and may also be used to compensate victims for losses. Fees may also have a punitive and deterrent purpose, but are not designed to cater to specific offense categories.”¹

Most recently, Beckett and Harris (2011) provided a detailed history of the use of monetary sanctions in the adult criminal justice system in the U.S., and they reported that monetary sanctions have 1) existed for many centuries in the U.S., 2) legislatures have authorized new fees and fines in recent years, and 3) that criminal justice agencies appear to be more increasingly open to imposing them. Furthermore, they indicated that there were over 20 different fines and fees that can be imposed on an offender when convicted of a felony in the state of Washington, for example. Overall, their analysis of the imposition of financial penalties on adult offenders in Washington State led them to conclude that the magnitude of the fines and fees imposed, the low repayment rates, and the accrual of interest for lack of timely repayment all served as explanations as to why justice system debt is often, and likely will be, a long term debt/burden with implications for recidivism and reintegration.

Caution is needed here, however, as it is critically important to understand that there are stark philosophical differences between the adult criminal justice system and the juvenile justice system, and these differences inform the variability in their applications of and expectations for financial sanctions. For instance, the adult criminal justice system is primarily retribution-oriented, and, as such, the imposition of financial penalties are clearly intended to serve as

¹ Also, it is important to note that there exists a penological difference between fees and fines, where some countries may and do use fines as a form of punishment in lieu of incarceration whereas fees are generally imposed for the purpose of the defendant paying for the court management of each case (Beckett & Harris, 2011; Harris, 2016). The data used in the current study come from Allegheny County, Pennsylvania, whom collectively refer to fines and fees as “costs”.

punishments (generally in addition to probation or incarceration). In contrast, certain financial penalties, such as restitution for example, in the juvenile justice system is more heavily predicated on the juvenile justice system's rehabilitation-oriented philosophy and on its inherent mission and goals of promoting accountability, increasing youth competency (e.g., education, vocational skills, life skills, etc.), repairing the harm done to the victim/s, and engaging the community in this process (Bazemore, 1992; Bazemore & Maloney, 1994; Maloney et al., 1988; Umbreit, 1989; Van Ness, 1990; Zehr, 1990). Acknowledging these important differences between the adult criminal justice system and the juvenile justice system, for present study purposes, it is worth noting that research on the relationship between the imposition of financial penalties and recidivism in general and among juvenile offenders in particular is noticeably lacking in the literature. This state of affairs is rather unfortunate for several reasons.

First, not only may the imposition of financial penalties be applied disproportionately to persons who lack the financial means by which to pay them, which may increase their likelihood of re-offending, but these monetary sanctions may also be disproportionately applied to minority (offending) youth who are already at increased risk for differential juvenile and adult justice system involvement (Piquero, 2008). Second, the imposition of financial penalties to young persons, who typically do not have the requisite financial resources to pay such costs because of the lack of (gainful) employment may also serve as a barrier to their eventual and effective reintegration back into mainstream society and, in turn, increase the likelihood of further penetration into the juvenile (and potentially adult) justice system that is likely to lead to additional disruptions and adverse consequences in other life domains such as education and eventual employment. Third, serious juvenile offenders who encounter experience with the juvenile justice system are at a key location in the life course, when turning points and life events

may influence their subsequent offending trajectory (Laub & Sampson, 2001; Piquero et al., 2003, 2012). It is well known that the majority of criminal careers end by the end of adolescence (Moffitt, 1993), yet individuals who experience snares, such as an excessive financial penalty, may be re-directed away from potential desistance and back toward offending in order to obtain resources to pay such penalties. As a result of these juvenile-specific issues, studying the consequences of excessive financial penalties among adolescent offenders represents a critically important opportunity among the policy-relevant group given the potential impact that their continued offending and its consequences may have on the youth, their families, and society more generally (see Cohen & Piquero, 2009; Mulvey et al., 2004).

The Current Study

Given the lack of prior research (and hence literature) on the effect of financial penalties on recidivism among juvenile offenders, the current study is offered as an initial exploration into this issue. Accordingly, the current study undertakes empirical analyses on the imposition of financial penalties imposed and owed and their effect on a two-year recidivism follow-up among a large cohort of adolescent offenders from Allegheny County, Pennsylvania. In so doing, not only does our work permit us the ability to examine how such costs vary by demographics (race, sex, prior disposition) and case characteristics (supervision status, type of offense), but also how financial penalties relate to recidivism after controlling for relevant demographics and case characteristics. Results from this investigation will be among the first empirical studies to examine the relationship between the effects of financial penalties on recidivism among adolescent offenders and as a result has the potential to help inform policy and practice in the juvenile justice system.

Methods

Data

The data for this study is based on the entire cohort of 1,167 youth from Allegheny County, Pennsylvania who had a supervision status of adjudicated delinquent or consent decree before experiencing a case closing (e.g., an end date after active supervision) during the calendar year of 2013. In other words, all of these youth were under active (true) supervision and experienced a case closing during the calendar year of 2013 in order to be eligible for entry into the cohort. For the small percentage of youth (<4%) who had multiple cases/case closings during the calendar year of 2013, the case closing of their first episode/end date in the calendar year of 2013 was used for analysis in order to not have duplicate youth in the data.

Variables

Demographics

Three demographic variables were included, and these data were obtained from the state of Pennsylvania's Juvenile Court Judges' Commission Juvenile Case Management System (JCMS). Age represents a continuous measure based on the age of the youth at the time of the most recent disposition. The gender of the youth is coded as male=1 and female=0, and the race of the youth is also dichotomous (Non-White=1 and White=0).²

Case Characteristics

Two categorical variables were also included that measured specific case characteristics. These variables were: (1) the youth's supervision status prior to their case closing/end date (e.g.,

² The large majority of non-Whites in the sample were Black (94.8%).

adjudicated delinquent or consent decree³) (obtained from the Allegheny County Juvenile Probation Supervisor Database), and (2) the most serious offense type disposed (e.g., violent, drug, property, or other) for the most recent offense that resulted in their supervision status (obtained from the JCMS). In the multivariate analysis that follows, “consent decree” and “other offense” were omitted as the reference categories, respectively. In addition, whether or not the youth had a prior disposition, obtained from the JCMS, was also included as a dichotomous measure. Controlling for prior criminal activity—or in this case, prior disposition—is important because of the strong relationship between prior and future offending (Piquero, Farrington, & Blumstein, 2003).

Costs (Fines and Fees)

Costs include both fines and fees charged to the youth for their current supervision offense at disposition. Fines include those that can be ordered by the magistrate for failing to comply with certain conditions imposed and these fines are categorized as the District Justice Fund Stipend in Pennsylvania. Comparatively, there are a host of fees that can be levied on the youth, and these fees include: the Victim Compensation Fund, the Victim Curriculum Fund, the state’s computer/technology fund, fees associated with drug offenses (including driving under the influence), the costs of drug testing when the offense is a drug offense, the cost of DNA testing, the cost of ballistics testing when the offense is a gun offense, the cost of destroying the electronic monitoring device (e.g., the youth cuts off the ankle bracelet), or the costs for

³ In Allegheny County, Pennsylvania, a consent decree is a supervision status that can be imposed versus “standard probation”, and can be considered an alternative to adjudication so that the youth can avoid the stigma that is attached to an adjudication of delinquency. Essentially, as long as the juvenile maintains compliance with the conditions outlined in the consent decree and no new allegations are filed against the juvenile while under the supervision/consent decree then the juvenile avoids an adjudication of delinquency once the consent decree expires. As such, youth who are on consent decree versus “standard probation” are generally less serious offenders with less prior delinquent/criminal history.

missing/not attending a mental health evaluation appointment.⁴ Costs are represented in actual U.S. dollar amounts and these data were obtained from the state of Pennsylvania's Juvenile Court Judges' Commission's Juvenile Court Restitution System (JCRS).

Restitution

Restitution broadly encompasses any and all restitution that the youth was ordered to pay at disposition and these data were gathered from the JCRS. Specifically, the restitution ordered may take on several forms including: (1) victim restitution payments, (2) restitution payments ordered to pay back the state who "fronted/paid" the restitution to the victim/s on behalf of the defendant, and/or (3) restitution payments that were "fronted/paid" to the victim by a co-defendant on the defendant's behalf (so now the youth owes their co-defendant not the victim/s). Restitution is represented in actual U.S. dollar amounts.

Recidivism

Recidivism is a critical outcome in the criminal justice community and in this study was measured dichotomously (no/yes) using the state of Pennsylvania's definition. Specifically, a youth was identified as a recidivist if they were subsequently adjudicated for a new delinquent offense and/or convicted in adult criminal court for a felony or misdemeanor offense (guilty plea or nolo contendere) in the two years since the end date of their current supervision offense (e.g., not the date of the occurrence of their current supervision offense).⁵ Juvenile delinquency data were obtained from the JCMS, and the adult criminal conviction data was provided by the

⁴ The costs imposed that are associated with destroying electronic monitoring equipment and/or for having missed/not attended a mental health evaluation appointment are forgiven when the case is closed.

⁵ A word of caution is needed here when interpreting the recidivism rates as recidivism was not able to be tracked for youth who had their cases expunged. By not having these cases in the analysis, the recidivism rate could be slightly higher compared to the overall population as youth who have had their cases expunged usually have lower recidivism rates.

Administrative Office of the Pennsylvania Courts (AOPC). It is important to note that many recidivism studies only consider a six- or twelve-month follow-up window so an extra twelve months, totaling a full twenty-four months, provides a more expansive window within which to assess the effect of costs and restitution on subsequent offending.

Analytic Strategy

The analysis proceeded in a series of stages. In the first stage, descriptive statistics were presented for youth demographics, case characteristics, costs (fines and fees), and restitution imposed at disposition and/or owed upon case closing, and recidivism. The second stage of the analyses presented a series of bivariate associations between the youth demographics and case characteristics with 1) the amount of costs and/or restitution imposed at disposition; 2) the amount of costs and/or restitution still owed upon case closing; and 3) whether or not the youth owed any costs and/or restitution upon case closing in general. These analyses were conducted using chi-square tests (χ^2), *t*-tests, one-way analysis-of-variance tests (ANOVAs), and Pearson's correlations (*r*) where relevant contingent on the distribution of the variable(s). The third stage relied on similar bivariate analytical techniques employed in stage two (e.g., χ^2 tests, *t*-tests, ANOVAs, and *r*), but utilized these statistical tests to evaluate the associations between the youth demographics, case characteristics, the amount of costs and/or restitution imposed at disposition, the amount of costs and/or restitution still owed upon case closing, and whether or not the youth owed any costs and/or restitution upon case closing in general and recidivism. In the fourth stage of the analysis, a series of ordinary least squares (OLS) regression and logistic regression equations were estimated for continuous and dichotomous dependent variables, where relevant and respectively, in order to investigate the relationships between youth demographics and case characteristics with the costs and/or restitution imposed and/or owed in a multivariate

framework that controls for relevant variables. The fifth stage of our analyses involved estimating a series of logistic regression equations to determine the relationship between the youth demographics, case characteristics, and the costs and/or restitution imposed at disposition and/or owed upon case closing with recidivism in a multivariate framework.

Finally, the sixth stage of the analysis involved the estimation of several bivariate chi-square tests (χ^2) in an attempt to differentiate the percentage of youth who still owed costs and/or restitution upon case closing based on those that are eligible in the state of Pennsylvania to be employed (e.g., age 14 or older), and these age categories are further broken down into three categories: ages 12-13 (youth who were not eligible for employment), ages 14-17 (adolescent youth who were eligible for employment), and ages 18-21 (adult youth who were eligible for employment). Additional analyses were conducted in order to break down the percentage of youth who still owed costs and/or restitution upon case closing based on the categorical dollar amount imposed at disposition (e.g., \$0, \$0.01-\$99.99, \$100.00-\$199.99, \$200.00-\$299.99, \$300.00-\$399.99, \$400.00-\$499.99, \$500.00-\$599.99, \$600-\$699.99, \$700.00-\$799.99, \$800.00-\$899.00, \$900.00-\$999.99, or \$1000.00 or greater). This categorical dollar amount analysis was also examined for the three employment-eligible age categories: ages 12-13 (youth who were not eligible for employment), ages 14-17 (adolescent youth who were eligible for employment), and ages 18-21 (adult youth who were eligible for employment) as well.

Results

Descriptive statistics are provided in Table 1. On average, the youth in the cohort were 17.89 years of age ($SD= 2.14$), and were predominantly male (75.3%). Nearly two-thirds of the youth were Non-White (65.9%), and 50.8% had a prior disposition. Approximately 62.0% of the youths' supervision status was adjudicated delinquent and 38.0% were under consent decree. The majority of the youth had committed a violent offense (44.7%) for their current supervision

offense, followed by an “other” offense (26.0%), property offense (16.9%), and drug offense (12.4%).

Approximately 94.4% of the youth were ordered to pay costs (fines and fees) at disposition, and 35.8% were ordered to pay restitution at disposition. There was wide variability among the youth with respect to the total costs and restitution imposed upon them at disposition or owed upon case closing. On average, the youth were ordered to pay \$428.98 (SD= \$1,159.76) for their current supervision offense at disposition in fines, fees, and/or restitution, and, on average, the youth still owed \$237.40 (SD= \$1,086.87) in fines, fees, and/or restitution upon case closing. Overall, 24.5% of the youth still had outstanding fines, fees, and/or restitution upon case closing. Slightly more than one in four (27.0%) youth in the cohort had recidivated in the two years since case closing by having been adjudicated delinquent for a new offense and/or having been convicted in adult criminal court for a felony or misdemeanor. It is important to note that this rate of recidivism is somewhat lower than what is seen in federal recidivism studies, although these are mainly conducted among adults (see Durose, Cooper, & Snyder, 2014).

Table 1. Descriptive Statistics (n=1,167).

	Mean/%	SD	Minimum	Maximum
Age	17.89	2.14	12.00	21.00
Gender				
Male	75.3%	--	--	--
Female	24.8%			
Race				
Non-White	65.9%	--	--	--
White	34.1%			
Prior Disposition (Yes=1)	50.8%	--	--	--
Supervision Status Prior to Case Closing				
Adjudicated Delinquent	62.0%	--	--	--
Consent Decree	38.0%			
Most Serious Offense for Supervision Offense				
Violent	44.7%	--	--	--
Drug	12.4%			
Property				

Other	16.9%			
	26.0%			
Costs Imposed at Disposition (Yes=1)	94.4%	--	--	--
Restitution Imposed at Disposition (Yes=1)	35.8%			
Total Costs & Restitution Imposed at Disposition	\$428.98	\$1,159.76	\$0.00	\$15,704.30
Total Costs & Restitution Owed upon Case Closing	\$237.40	\$1,086.87	\$0.00	\$15,545.30
Owe Costs &/or Restitution upon Case Closing	24.5%	--	--	--
Recidivist (Yes=1)	27.0%	--	--	--

The bivariate associations for the youth demographics and case characteristics with the costs and/or restitution imposed at disposition are displayed in Table 2. There were no significant differences in the mean ages of the youth where costs (fines and fees) were imposed, but the youth who had restitution imposed were significantly older ($M = 18.61$ years of age), on average, relative to the youth where restitution was not imposed ($M = 17.48$ years of age; $t = -8.80, p < .001$). The youth's age was positively and significantly associated with the total amount of fines, fees, and/or restitution imposed at disposition ($r = .25, p < .001$) and the total amount of fines, fees, and/or restitution still owed ($r = .26, p < .001$) upon case closing. On average, the youth who still owed fines, fees, and/or restitution upon case closing were 19.54 years of age relative to the youth who did not owe fines, fees, and/or restitution upon case closing who were 17.35 years on average ($t = -16.85, p < .001$).

With respect to gender, a significantly greater percentage of males (39.4%) had restitution imposed on them at disposition compared to females (24.7%; $\chi^2 = 20.55, p < .001$). Furthermore, males, on average, had significantly higher fines, fees, and restitution imposed on them at disposition (males: $M = \$496.22$; females: $M = \$245.32, t = -3.20, p < .001$), owed significantly higher fines, fees, and/or restitution upon case closing (males: $M = \$279.99$; females: $M = \$151.32, t = -1.67, p < .05$), and a greater percentage of males still owed fines, fees, and/or restitution upon case closing in general (males: 26.3%; females = 19.1%; $\chi^2 = 6.09, p <$

.05). These differences are likely due to the fact that males were more likely to have a prior record (males: 53.5%; females: 42.7%; $\chi^2 = 10.16, p < .001$) and nearly 70% of the youth whose current supervision offense was a violent offense were male ($\chi^2 = 14.96, p < .001$).

Turning to race, the results showed that a significantly greater percentages of Non-Whites still owed fines, fees, and/or restitution in general upon case closing (Non-Whites: 29.1%; Whites: 15.6%, $\chi^2 = 26.03, p < .001$) relative to their White youth counterparts. As was the case for males, when we examined having a prior disposition and the current supervision offense for Non-Whites and Whites, we found that Non-Whites were more likely to have a prior record (Non-Whites: 60.6%; Whites: 31.9%; $\chi^2 = 86.36, p < .001$) and that 73.6% of the youth whose current supervision offense was a violent offense were Non-White ($\chi^2 = 25.06, p < .001$).

Youth who had costs ($\chi^2 = 4.20, p < .001$) or restitution ($\chi^2 = 68.15, p < .001$) imposed on them were significantly more likely to have had a prior disposition. Also, having a prior disposition was significantly associated with having higher fines, fees, and/or restitution imposed at disposition ($t = -6.81, p < .001$), having fines, fees, and/or restitution still owed upon case closing ($t = -6.15, p < .001$), and owing fines, fees, and/or restitution upon case closing in general ($t = 155.73, p < .001$). The amount of fines, fees, and/or restitution imposed at disposition ($t = -7.76, p < .001$) were significantly greater for youth whose supervision status was adjudicated delinquent versus consent decree (\$607.05 vs. \$151.00, respectively).⁶ In addition, having restitution imposed at disposition ($\chi^2 = 104.64, p < .001$), the amount of fines, fees, and/or restitution imposed at disposition ($F = 15.22, p < .001$) and owed upon case closing ($F = 8.63,$

⁶ Youth who are on consent decree do not owe costs and/or restitution after case closing because they either have to pay their debt in full or the judge may waive the debt in order to satisfy the requirements of the consent decree. Also, any restitution debt would have to be paid upon case closing in order to satisfy the requirements of the consent decree.

$p < .001$), as well as owing fines, fees, and/or restitution in general upon case closing ($\chi^2 = 40.22$, $p < .001$) also significantly varied by offense type, with property offenses typically having the highest value on the comparison outcome.

Table 2. Bivariate Associations between Demographics and Case Characteristics and Fines, Fees, and Restitution Imposed and Owed.

	Costs Imposed at Disposition	Restitution Imposed at Disposition	Total Costs & Restitution Imposed at Disposition	Total Costs & Restitution Owed Upon Case Closing	Owe Costs &/or Restitution Upon Case Closing
Age	Yes: M=17.90 No: M=17.75 <i>t</i> = -0.45	Yes: M=18.61 No: M=17.48 <i>t</i> = -8.80***	<i>r</i> = .25***	<i>r</i> = .26***	Yes: M=19.54 No: M=17.35 <i>t</i> = -16.85***
Gender Male Female	94.5% 94.4% $\chi^2= 0.01$	39.4% 24.7% $\chi^2= 20.55***$	M= \$496.22 M= \$245.32 <i>t</i> = -3.20***	M= \$279.99 M= \$151.32 <i>t</i> = -1.67*	26.3% 19.1% $\chi^2= 6.09^*$
Race Non-White White	94.4% 94.5% $\chi^2= 0.03$	36.4% 34.7% $\chi^2= 0.34$	M= \$418.17 M= \$449.88 <i>t</i> = 0.42	M= \$260.11 M= \$193.50 <i>t</i> = -0.97	29.1% 15.6% $\chi^2= 26.03***$
Prior Disposition Yes No	95.8% 93.0% $\chi^2= 4.20^*$	47.2% 24.0% $\chi^2= 68.15***$	M= \$649.42 M= \$201.25 <i>t</i> = -6.81***	M= \$424.53 M= \$44.53 <i>t</i> = -6.15***	40.0% 8.5% $\chi^2= 155.73***$
Supervision Status Prior to Case Closing Adjudicated Delinquent Consent Decree	93.9% 95.3% $\chi^2= 0.93$	43.6% 23.0% $\chi^2= 50.84***$	M= \$607.05 M= \$151.00 <i>t</i> = -7.76***	--	--
Most Serious Offense for Supervision Offense Violent Drug Property Other	94.6% 97.2% 92.9% 93.7% $\chi^2= 3.39$	30.7% 29.7% 67.5% 27.1% $\chi^2= 104.64***$	M= \$394.32 M= \$235.98 M= \$946.96 M= \$263.35 <i>F</i> = 15.22***	M= \$239.51 M= \$74.37 M= \$560.49 M= \$101.72 <i>F</i> = 8.63***	24.5% 19.3% 40.6% 16.5% $\chi^2= 40.22***$

Note. M=Mean; *r*= Pearson's Correlation Coefficient; *t*= *t* statistic derived from and independent samples *t*-test; *F*= *F* statistic derived from an analysis-of-variance test; χ^2 = Chi-square statistic derived from a chi-square analysis.

+*p*<.10 **p*<.05 ***p*<.01 ****p*<.001 (one-tailed)

Table 3 provides the bivariate associations between the youth demographics, case characteristics, and fines, fees, and/or restitution imposed and the two-year recidivism follow-up. On average, recidivists are significantly older than the non-recidivists (recidivists: $M= 18.23$ years of age; non-recidivists: $M= 17.76$ years of age, $t = -3.37, p < .001$). A significantly greater percentage of males (30.9%; $\chi^2 = 26.73, p < .001$) and Non-Whites (31.6%; $\chi^2 = 24.29, p < .001$) recidivated compared with females (15.3%) and Whites (18.1%). Recidivism also varied significantly by supervision status ($\chi^2 = 33.47, p < .001$), with a higher percentage of youth whose status was adjudicated delinquent (32.9%) recidivating relative to youth who were on consent decree (17.4%). Similarly, recidivism significantly varied by having a prior disposition ($\chi^2 = 56.40, p < .01$) and offense type ($\chi^2 = 11.69, p < .01$), with a greater percentage of youth who had a prior disposition and/or whose current supervision offense was a drug offense or a property offense recidivating relative to those youth without a prior disposition and/or those youth whose current supervision offense was a violent offense or an “other” offense. When looking at the association between fines, fees, and/or restitution imposed and recidivism, having restitution imposed at disposition ($\chi^2 = 12.96, p < .001$), having a greater amount of fines, fees, and/or restitution imposed at disposition ($t = -6.12, p < .001$), owing a greater amount of fines, fees, and/or restitution upon case closing ($t = -4.11, p < .001$), along with owing fines, fees, and/or restitution in general upon case closing ($\chi^2 = 20.87, p < .001$) were all significantly related to recidivism.⁷

⁷ Due to the positive skewness that existed in the distributions for the costs and/or restitution imposed and owed, the natural logarithmic (ln) transformation was performed on these variables prior to analysis.

Table 3. Bivariate Associations between Demographics, Case Characteristics, and Fines, Fees, and Restitution Imposed and Owed and Recidivism.

	Recidivism
Age	Recidivist: M=18.23 Non-Recidivist: M=17.76 $t = -3.37^{***}$
Gender Male Female	30.9% 15.3% $\chi^2 = 26.73^{***}$
Race Non-White White	31.6% 18.1% $\chi^2 = 24.29^{***}$
Prior Disposition Yes No	36.6% 17.1% $\chi^2 = 56.40^{***}$
Supervision Status Prior to Case Closing Adjudicated Delinquent Consent Decree	32.9% 17.4% $\chi^2 = 33.47^{***}$
Most Serious Offense for Supervision Offense Violent Drug Property Other	26.8% 33.1% 32.5% 20.8% $\chi^2 = 11.69^{**}$
Costs Imposed at Disposition Yes No	27.3% 21.5% $\chi^2 = 1.04$
Restitution Imposed at Disposition Yes No	33.3% 23.5% $\chi^2 = 12.96^{***}$
Total Costs & Restitution Imposed (In) at Disposition	Recidivist: M= 5.27 Non-Recidivist: M= 4.68 $t = -6.12^{***}$
Total Costs & Restitution Owed (In) Upon Case Closing	Recidivist: M= 1.93 Non-Recidivist: M= 1.19 $t = -4.11^{***}$
Owe Costs &/or Restitution Upon Case Closing Yes No	37.4% 23.6% $\chi^2 = 20.87^{***}$

Note. M=Mean; r = Pearson's Correlation Coefficient; t = t statistic derived from and independent samples t -test; F = F statistic derived from an analysis-of-variance test; χ^2 = Chi-square statistic derived from a chi-square analysis.

⁺ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Predicting Financial Penalties

The results from a series of multivariate OLS and logistic regression models examining the relationship between the youth demographics and case characteristics and fines, fees, and/or imposed and/or owed are displayed in Table 4. As shown in Column 1, youth with prior

disposition (OR= 2.45, $p < .01$) and youth whose current supervision offense was a drug offense relative to an “other” offense (OR= 2.14, $p < .10$) were significantly more likely to have costs (fines and fees) imposed at disposition whereas youth whose supervision status was adjudicated delinquent was negatively related to the likelihood of have costs (fines and fees) imposed at disposition (OR= 0.48, $p < .05$). Comparatively, age (OR= 1.18, $p < .001$), being male (OR= 1.65, $p < .001$), having a prior disposition (OR= 1.89, $p < .001$), and youth whose current supervision offense was a property offense relative to an “other” offense (OR= 4.35, $p < .001$) all significantly increased the odds of having restitution imposed at disposition (see Table 4, Column 2). Further, as illustrated in Column 3, age (beta= 0.14, $p < .001$), being male (beta= 0.12, $p < .001$), having a prior disposition (beta= 0.24, $p < .001$), and youth whose current supervision offense was a property offense relative to an “other” offense (beta= 0.23, $p < .001$) were all positively and significantly related to the total amount of fines, fees, and/or restitution imposed at disposition. Similarly, having a prior disposition (beta= 0.09, $p < .001$), being male (beta= 0.04, $p < .10$), and being Non-White (beta= 0.09, $p < .001$) were positively and significantly associated with the total amounts of fines, fees, and/or restitution owed upon case closing, as was also true for the youth’s age at the time of the disposition (beta= 0.39, $p < .001$) (see Table 4, Column 4). Offense type was also significantly associated with the total amount of fines, fees, and/or restitution owed upon case closing (drug offense: beta= -0.09, $p < .05$; property offense: beta= 0.13, $p < .001$). Finally, the logistic regression results presented in Column 5 reveal that the odds of still owing fines, fees, and/or restitution in general upon case closing was positively related with the age of the youth (OR= 1.73, $p < .001$), Non-White youth (OR= 1.68, $p < .05$), youth who had a prior disposition (OR= 2.89, $p < .001$), and for youth whose current supervision offense was a property offense (OR= 2.06, $p < .05$).

Table 4. Regression of Fines, Fees, and Restitution Imposed and Owed on Demographics and Case Characteristics.

	Costs Imposed at Disposition	Restitution Imposed at Disposition	Total Costs & Restitution Imposed (ln) at Disposition	Total Costs & Restitution Owed (ln) Upon Case Closing	Owe Costs &/or Restitution Upon Case Closing
	OR	OR	Beta	Beta	OR
Age	1.00	1.18***	0.14***	0.39***	1.73***
Male	1.01	1.65***	0.12***	0.04 ⁺	1.07
Non-White	0.85	0.93	-0.03	0.09***	1.68**
Prior Disposition	2.45**	1.89***	0.24***	0.14***	2.89***
Adjudicated Delinquent	0.48*	1.12	0.04	--	--
Violent Offense	1.24	1.04	0.03	0.05 ⁺	1.20
Drug Offense	2.14 ⁺	0.88	0.01	-0.09*	0.79
Property Offense	0.86	4.35***	0.23***	0.13***	2.06***
Model Diagnostics					
Adjusted R ²			0.21	0.27	
Nagelkerke R ²	0.03	0.21			0.37

Note. Beta= Standardized coefficient derived from OLS regression; OR= Odds Ratio derived from Logistic Regression; ln= natural logarithmic transformation.

⁺p<.10 *p<.05 **p<.01 ***p<.001 (one-tailed)

Predicting Recidivism

Table 5 displays the results from a series of logistic regression models that estimated the effects of youth demographics, case characteristics, and the fines, fees, and/or restitution imposed and/or owed on the two-year recidivism measure. Five models are presented in Table 5. Although all five models contain many of the same youth demographics and case characteristic variables, we parcel out the individual effects for the fines, fees, and/or restitution imposed and/or owed by the youth in order to capture the individual effect of each measure on recidivism while controlling for all other variables. Several interesting results emerged from these analyses.

With respect to the demographic and case characteristic variables, consistent effects on recidivism are observed for many of them. In particular, males, Non-Whites, youth with a prior disposition, youth who were adjudicated delinquent versus on a consent decree, as well as youth with a drug or property offense all exhibited an increased likelihood of recidivism. While these effects are important in general and consistent with much recidivism research in (adult) criminal justice samples more generally (Durose, Cooper, & Snyder, 2014), our main interest herein is on the relationship of the fines, fees, and/or restitution variables on recidivism—the results of which are quite consistent.

Specifically, having restitution imposed at disposition (OR= 1.23, $p < .10$), the total amount of fines, fees, and/or restitution imposed at disposition (OR= 1.15, $p < .001$) and owed upon case closing (OR= 1.04, $p < .01$), as well as owing fines, fees, and/or restitution in general upon case closing (OR= 1.33, $p < .05$) all significantly increased the odds of a youth recidivating. Importantly, these results hold even after controlling for relevant youth demographics and case characteristics variables.

Table 5. Regression of Recidivism on Demographics, Case Characteristics, and Fines, Fees, and Restitution Imposed and Owed.

	Recidivist	Recidivist	Recidivist	Recidivist	Recidivist
	OR	OR	OR	OR	OR
Age	0.97	0.96	0.95	0.96	0.96
Male	2.36***	2.31***	2.21***	2.38***	2.39***
Non-White	1.78***	1.78***	1.81***	1.79***	1.78***
Prior Disposition	2.11***	2.08***	1.95***	2.27***	2.24***
Adjudicated Delinquent	1.29 ⁺	1.27 ⁺	1.24	--	--
Violent Offense	1.16	1.17	1.16	1.19	1.19
Drug Offense	1.60*	1.63*	1.62*	1.63*	1.63*
Property Offense	1.43*	1.35 ⁺	1.27	1.43*	1.43*
Costs Imposed at Disposition	1.25				
Restitution Imposed at Disposition		1.23 ⁺			
Total Costs & Restitution Imposed (ln) at Disposition			1.15***		
Total Costs & Restitution Owed (ln) Upon Case Closing				1.04*	
Owe Costs &/or Restitution Upon Case Closing					1.33*
Model Diagnostics					
Nagelkerke R²	0.12	0.12	0.13	0.12	0.12

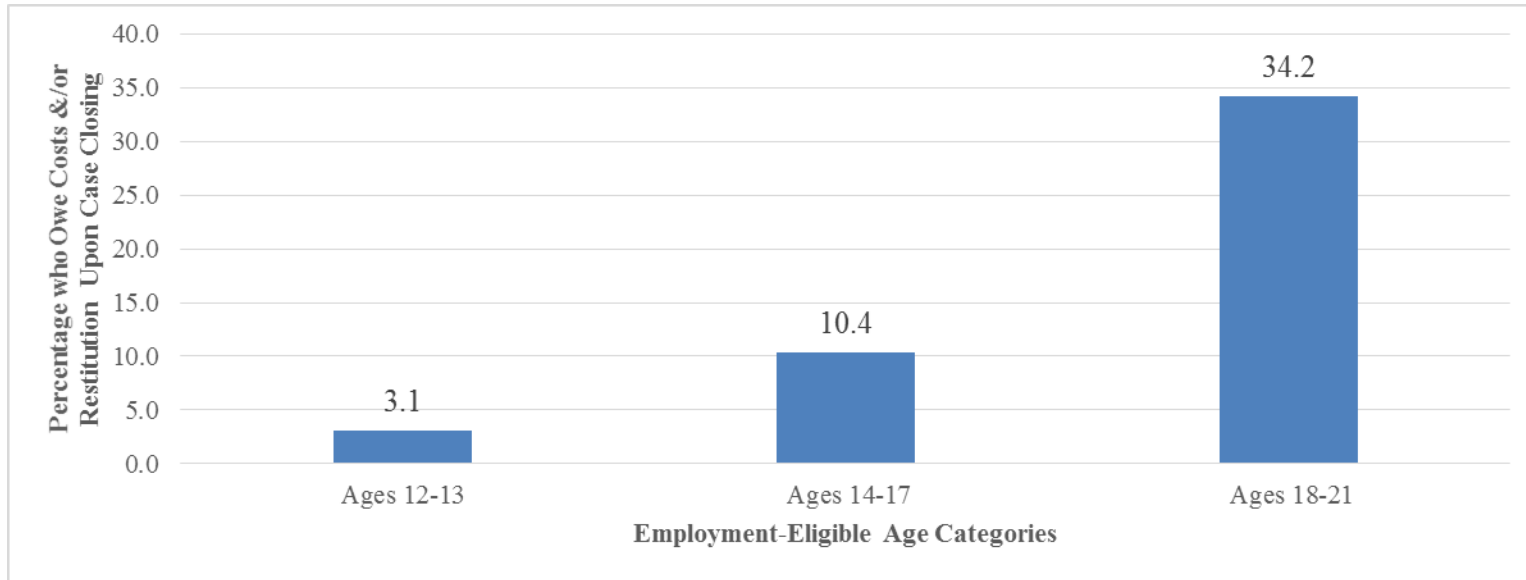
Note. OR= Odds Ratio derived from Logistic Regression; ln= natural logarithmic transformation.

⁺p<.10 *p<.05 **p<.01 ***p<.001 (one-tailed)

Financial Penalties and Employment-Eligible Age Relationships

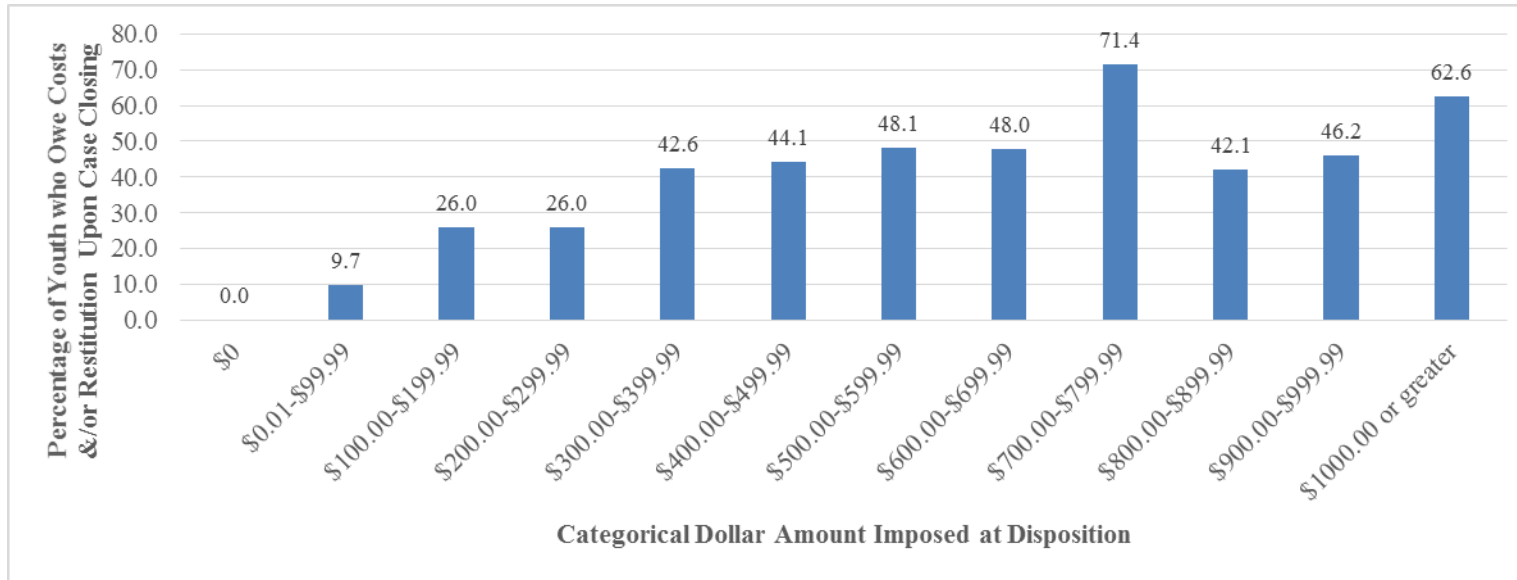
The final analysis focused on further breaking down the percentages of youth who still owed costs and/or restitution upon case closing based on their employment-eligibility: ages 12-13 (youth who were not eligible for employment), ages 14-17 (adolescent youth who were eligible for employment), and ages 18-21 (adult youth who were eligible for employment), and in an effort to identify the categorical dollar amount/s imposed at disposition at which there may be a diminishing return as the amount/s was too steep for a noteworthy percentage of youth to be able to pay upon case closing. As illustrated in Figure 1, there was a statistically significant association between the percentage of youth who still owed costs and/or restitution upon closing based on their employment-eligible age categories ($\chi^2 = 90.67, p < .001$). Specifically, 3.1% of youth (ages 12-13) who were not eligible for employment still owed costs and/or restitution upon case closing compared with 10.4% of the adolescent youth (ages 14-17) and 34.2% of the adult youth (ages 18-21) who were eligible for employment. Figure 2 displayed the distribution of the percentage of youth who still owed costs and/or restitution based on the categorical dollar amount imposed at disposition. This analysis demonstrated that there was a statistically significant association between the percentage of youth who owed costs and/or restitution upon case closing based on the categorical dollar amount of costs and/or restitution imposed at disposition ($\chi^2 = 235.46, p < .001$). For example, it appears that the noticeable majority of youth were able to pay what was imposed when the amount imposed at disposition was less than \$300. And, for the most part, only about half of the youth were able to pay what was imposed when the amount imposed was greater than \$300.00, with a particularly high percentage of youth being unable to pay when the amount imposed was in the \$700.00-\$799.99 (71.4%) or in the \$1000.00 or greater (62.6%) range.

Figure 1. Percentage of Youth Who Owe Costs &/or Restitution Upon Case Closing by Employment-Eligible Age Categories.



Note. $\chi^2= 90.67, p < .001$.

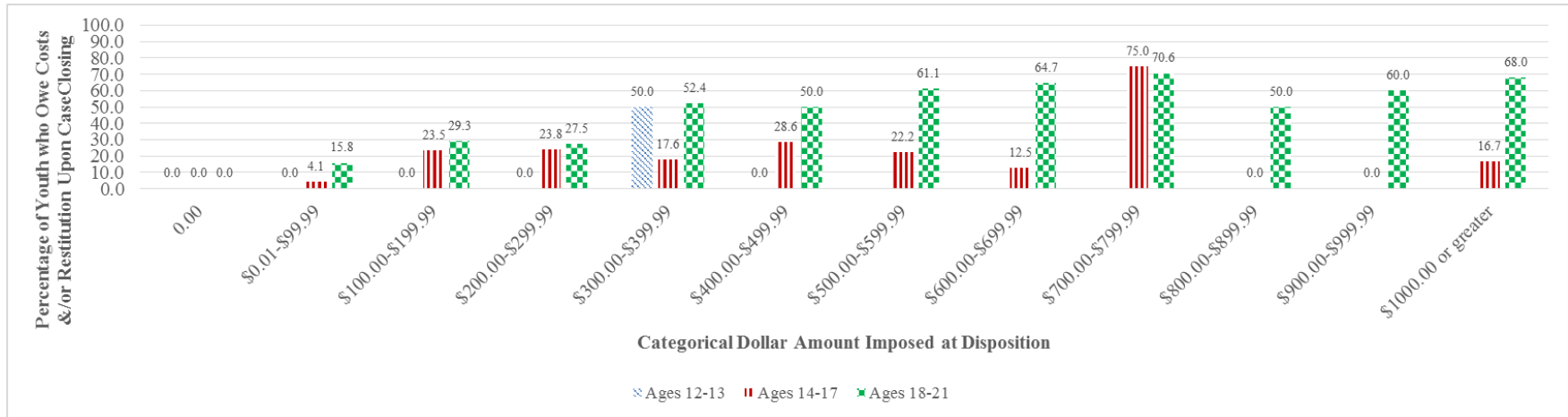
Figure 2. Percentage of Youth Who Owe Costs &/or Restitution Upon Case Closing by Categorical Dollar Amount Imposed at Disposition.



Note. $\chi^2 = 235.46, p < .001$.

Finally, as illustrated in Figure 3, all of the youth ages 12-13 who were not eligible for employment were able to pay the costs and/or restitution imposed when it was less than \$300.00, but half of the youth were unable to pay what was imposed when the amount imposed was greater than \$300.00. Similarly, most of the adolescent youth who were eligible for employment (ages 14-17) were able to pay the costs and/or restitution imposed when it was less than \$700.00, but the analysis indicated that once the amount imposed reached certain thresholds such as \$700.00-\$799.99 (75%) a considerably higher percentage of youth ages 14-17 were unable to pay their debt in full upon case closing. In contrast, among the employment-eligible adult youth (ages 18-21), a substantial majority were able to pay the amount imposed when it was less than \$300.00, but when the amount imposed exceeded \$300.00 no more than 50% of the youth were able to pay the amount imposed across all of the larger categorical dollar amounts of costs and/or restitution imposed.

Figure 3. Percentage of Youth Who Owe Costs &/or Restitution Upon Case Closing by Categorical Dollar Amount Imposed at Disposition and by Employment-Eligible Age Categories.



Note. Ages 12-13: $\chi^2= 15.48, p< .001$; Ages 14-17: $\chi^2= 53.72, p< .001$; Ages 18-21: $\chi^2= 144.97, p< .001$; Total: $\chi^2= 235.46, p< .001$.

Discussion

The use of monetary penalties aimed at punishment for offenders for their misdeeds and for potentially deterring their subsequent offending has long been a staple of punishments in any modern criminal justice system (Beccaria, 1764; Morris & Tonry, 1990). And, while some sort of financial penalty may seem like a reasonable way to punish transgressors, they may also entail adverse consequences, such as continued re-offending, to the extent that the offenders whom these costs are imposed on are unable to pay because of the lack of employment and/or other monetary pressures. With a few exceptions, there has been very little research on the effect of these financial penalties on recidivism and that which has been conducted has focused mainly on day fines and/or within adult offending populations. Almost no empirical research exists on the imposition of fines, fees, and/or restitution among juvenile offenders and the degree to which such costs are related to recidivism within this group. Focusing such analyses on juvenile offenders is especially important because they represent a very policy-relevant group due to their positioning in the life-course when many criminal careers end and a few careers continue (see Farrington et al., 2013; Jennings et al., 2016; Laub and Sampson, 2001; Mulvey et al., 2004; Piquero et al., 2012). Accordingly, this study undertook a preliminary analysis of the relationship between the imposition of fines, fees, and/or restitution on recidivism in a large cohort of youth from Allegheny (Pittsburgh) County, Pennsylvania who were under supervision (adjudicated delinquent or on consent decree) for a recent offense and had their case closed during the calendar year of 2013.

Several key findings emerged from our work. First, the analyses showed that youth who had restitution imposed evinced a significantly higher likelihood of recidivism. As well, the sheer amount of costs and/or restitution imposed increased their likelihood of recidivism. Second, owing costs and/or restitution upon case closing in and the amount of costs and/or

restitution still owed upon case closing were also significantly related to recidivism. Importantly, these findings hold in multivariate analysis that controlled for relevant youth demographics and case characteristics variables that themselves are related to recidivism but that do not eliminate the adverse effect of costs and/or restitution on recidivism. Third, and potentially troubling from a social policy perspective, our analyses also indicate that Non-Whites were more likely to still owe costs and restitution upon case closing.⁸ When this is coupled with their higher likelihood of recidivism, minority youth in these data not only face problems in closing their financial debt to the juvenile justice system but also may exert additional costs on the system as a result of their higher likelihood of recidivism. This leads to a very important, provocative but relevant, policy question: are these financial punishments appropriate if certain persons, minorities in the current study, are unable to pay them off?⁹ Fourth, our final analysis suggested that there appears to be a ‘sweet spot’ so to speak for where they may be a threshold amount imposed where there are diminishing returns on the probability for full payment of debt upon case closing. Specifically, the results demonstrated that most youth who were not eligible for employment based on their age (ages 12-13) were able to pay the full amount of costs and/or restitution imposed upon case closing when it was \$300.00 or less, whereas only half of the youth in this age group were able to pay all of their debt upon case closing when the amount imposed exceeded \$300.00. Comparatively, among employment-eligible adolescent youth (ages 14-17) and adult youth (ages 18-21), the majority of these youth were able to pay the full amount

⁸ It is important to bear in mind that disproportionality does not automatically equate to system-based racial bias. Because our data do not have information as to the reason for the disproportionality, we cannot speak to the intention of any juvenile justice personnel with respect to why some youth receive greater fines, fees, and/or restitution. Such research is needed, especially given the findings from the extant literature regarding criminal justice actors’ differential attributions about the causes of crime among white and minority youth (see Bridges & Steen, 1998; though see Bechtold et al., 2015).

⁹ We would like to thank Alexes Harris for this specific observation.

of their debt upon case closing when the amount imposed did not exceed \$700.00 and \$300.00, respectively. In short, the main takeaway from our analysis is clear: 1) financial burden increases the likelihood of recidivism among adolescent offenders; and 2) there are certain thresholds where the amount of costs and/or restitution imposed may be considered excessive at least when considering the ability of the youth to pay, and these thresholds vary for youth depending on whether or not they are of an employment-eligible age.

Before we highlight some specific policy and practice considerations, we must acknowledge some limitations associated with the current study. First, although our analysis is among the first to examine the potentially adverse effects of financial penalties on recidivism in a sample of juvenile offenders, we do not have access to a comparable group of youth who were not given any financial penalties. Ideally, a randomized experiment would take place and that is surely a goal for future research—recognizing the difficulty with which carrying out such a study in ‘real-world’ juvenile and criminal justice agencies is challenging at best. Second, while we had a two-year window within which to measure recidivism, which is about a year longer than many recidivism studies, our recidivism measure was based on official records. Thus, some offending could have occurred but went undetected by the juvenile and/or criminal justice system. Third, it was very important that we had access to several important youth and case characteristics that have been found to be related to recidivism for our study; however, as is the case in many administrative data sources, there are many other variables that could potentially be related to either or both, recidivism and the extent to which financial penalties are levied on youth—and, if so, for what amount. For example, Beckett and her colleagues (2008) found that criminal justice debt also varied by certain county characteristics, which unfortunately were not present in the data we used herein as these data were drawn from one county. Other relevant

control variables would be the youth's living situation—especially the financial resources of their families and the youth's own educational attainment. It would also be important for future research to include dynamic risk factors such as measures generated from standardized risks/needs assessments (such as the Youth Level of Service) in addition to the static risk factors relied on in the current study (e.g., demographics, prior disposition, offense type, etc.) in order to rule out other potentially rival causal factors. Finally, as the majority of the non-White youth in the current study were Black, a larger data collection effort would hopefully permit analyses across race and ethnicity to better assess the extent to which different minority group members have more or less financial penalties levied upon them and then, in turn, how such penalties affect subsequent offending. Research on race—and especially ethnic differences—in the juvenile justice system is sorely needed.

In short, we do not wish to leave readers with a sense that carrying out this type of research will be too difficult and time-consuming to pursue. It certainly is the case that conducting empirical research on juvenile offenders is very challenging because of the data constraints and appropriate protections afforded to youth because of their age. However, as noted before, juvenile offenders are a very important group to study from a policy perspective and examining how various interventions, not just financial penalties, influence the future course of their criminal and non-criminal careers is highly important.

Let us be sure that our work is not interpreted in a manner that suggests that costs and/or restitution should be not be used. When used fairly and wisely, they certainly represent one form of punishment between prison and probation (i.e., Morris & Tonry, 1990). However, the distinction between costs (fines and fees) and restitution is indeed an important one as the former can be seen as a monetary sanction to offset the burden of juvenile justice system case processing

(e.g., fees imposed) or applied for certain types of offenses (e.g., driving-under-the-influence fines, for example), whereas restitution is rooted in the philosophical ideals of restorative justice and repairing harm done to the victim (Bazemore, 1992; Bazemore & Maloney, 1994; Maloney et al., 1988; Umbreit, 1989; Van Ness, 1990; Zehr, 1990). In this vein, there may likely be some elements of the restitution and victim-repayment process that reduce recidivism risk and foster successful reintegration for some youth as the youth may come to recognize the importance of accountability, develop certain competencies (e.g., work experience, active learning, community service opportunities), increase their empathy for their victim/s and victims in general, and appreciate their active role in repairing the harm done. Yet, we also believe that the juvenile justice system should take various aspects of the offender and the case into account, including the nature (especially severity) of the offense as well as the financial means that the offender has available to them in order to pay the financial penalties imposed in general (e.g., Hillsman & Greene, 1988). Imposing excessive financial penalties (including restitution) on offenders may do more harm than good, and not only serve as a potential barrier that limits their reintegration back into mainstream society, but perhaps more importantly may undermine the role of justice and fairness within the juvenile (and adult) justice system more generally (Beckett & Harris, 2011, p. 510).

Perhaps instead, the manner and process by which financial penalties are employed should be reconsidered. For example, when policymakers and juvenile justice actors are considering options to reduce financial burden, then perhaps it would be useful to begin with a reduction or a waiver of the costs imposed (which are more readily understood as punishments by definition) versus restitution imposed as restitution may have some positive benefits for the offender as described above and certainly contribute to one of the primary goals of the

philosophy of restorative justice which is to financially repair the harm done to the victim/s (Bazemore, 1992; Bazemore & Maloney, 1994; Maloney et al., 1988; Umbreit, 1989; Van Ness, 1990; Zehr, 1990). Furthermore, perhaps the implementation of a program where financial penalties are implemented in more of a graduated fashion where offenders pay their debt in say for example, a monthly installment, and then perhaps as their employment wages increase over time, the financial costs incurred by the offender would rise proportionately. “Day fines”, which are a common feature of many European and Latin American countries, could also present a viable alternative that ties the financial penalty to what a defendant earns in a given day. Although the details of this approach and how it would be implemented need to be solidified, the results of our study suggest that the imposition of financial penalties are having an adverse effect with respect to subsequent re-offending and, in turn, likely hampering efforts at reintegrating these juvenile offenders back into mainstream society where they can become productive citizens. Other strategies in existence in some jurisdictions (such as in Allegheny County in particular) for youth who are under the age of 14 where legal employment is not permitted are opportunities for youth to go above and beyond the amount of community service required to earn money to help pay their restitution. This, in addition to employment services and vocational skills training that are available to ex-offenders are important mechanisms by which to facilitate the offender’s repayment of their debt, but, more importantly, to assist them in developing requisite job skills to improve their chances of successful reintegration.

Ultimately, the suggestions we highlight above need to be considered carefully within the context of ensuring that whatever financial penalty structure is implemented that it is done so fairly to the heterogeneous population of juvenile offenders, including those youth who are given fines/fees/restitution and are able to pay them compared to those youth who may have difficulty

in paying them. In this vein, the financial penalty and re-payment structure also needs to be informed by the recognition that there is a philosophical rationale in the juvenile justice system (and potentially positive benefits for some youth) for certain monetary sanctions, such as restitution (Bazemore, 1992; Bazemore & Maloney, 1994; Maloney et al., 1988; Umbreit, 1989; Van Ness, 1990; Zehr, 1990), and that there is a clear difference between the inability to pay (e.g., financial burden) versus the ability *but* unwillingness to pay. Developing a deeper understanding as to what burden(s) this is causing to the offender and, in turn, increasing the likelihood of their recidivism is in order if the juvenile justice system is to punish in a fair, efficient, and effective manner (see also Harris, 2016), yet still operate in accordance to the rehabilitative (and restorative) goals that distinguish the juvenile justice system from the more punishment-oriented adult criminal justice system (Monahan, Steinberg, & Piquero, 2015; Nagin et al., 2006).

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