Abstract
In recent years cities and localities across the country have expanded the use of youth curfews to address growing public concern about juvenile crime and violence. By reducing the number of youths on the street during certain hours, curfews are assumed to lesson the number of circumstances in which youth crime can occur. It is also assumed that curfews reduce youth crime by deterring youths from being on the streets at certain hours out of fear of being arrested. Curfews have been widely-cited by policy makers as an effective tool for reducing youth crime. However, despite these assertions, virtually no comprehensive analysis of the effects of these laws has been completed. This study analyzes arrest data from jurisdictions throughout California. It is hypothesized that jurisdictions with strict curfew enforcement will experience lower overall, and serious crime arrests, than jurisdictions with less strict curfew enforcement. Also, because of their emphasis on youth curfew enforcement, jurisdictions with strict youth curfews will have accelerated rates of youth crime reduction in relation to adult crime trends.

Introduction
National and California leaders, including President Bill Clinton, Governor Pete Wilson, and Attorney General Dan Lungren, have endorsed implementation and enforcement of stronger "status" laws (those imposed on children and youths but not on adults, such as laws criminalizing running away from home, truancy, underage drinking, incorrigibility, and presence in public during certain hours). The last of these, nighttime and schoolday curfews, have won the most attention and have been cited by Clinton and Lungren for their potential to reduce juvenile crime (Krikorian, 1996; Riccardi, 1997). Strict curfew enforcement follows deterrence theory, which argues that "certain, swift, and severe punishments" will cause juveniles to rationally weigh consequences and commit fewer criminal acts (Lundman, 1993, p.150). Defenders argue that such laws protect youth and the public from violence and criminality and deter violators from more serious offenses (Reufle, Reynolds and Brantley, 1997). Detractors warn that arresting youth for acts that would not be crimes if committed by adults violates basic constitutional guarantees, leads to antagonism between non-criminal youth and law enforcement, and is an inefficient way to deter crime (Harvard Law Review Association, 1997).

Curfews also employ elements of incapacitation theory, though only if narrowly applied. Incapacitation theory holds that most youth crime is caused by a small number of juveniles who can be identified and restrained. Curfews used to incapacitate would be
selectively applied only to juveniles who are repeat offenders, not to all youths. Boston has implemented incapacitory curfews targeting only youths on probation and, initially at least, claims success in preventing homicide. Incapacitory curfews are not evaluated in this paper since California curfews apply to all youths (Lundman 1993).

Instead of presenting controlled data, advocates on both sides have made anecdotal statements to the media such as, "Monrovia, California's, curfew adoption resulted in a 54% decline in daytime burglaries (Riccardi, 1997)." This assertion requires scrutiny since Monrovia had already experienced a 40% decline in juvenile burglaries (and had only 13 juveniles arrested for burglary per year) prior to the curfew's adoption (Criminal Justice Statistics Center, 1978-96). The decline was also not compared to that of cities which did not enforce curfews.

Recently, the U.S. Conference of Mayors surveyed the nation's 1,010 cities with populations more than 30,000, asking if law enforcement authorities would credit their curfews for any recent improvements in juvenile crime. Only one-third, or 347, of the cities responded to this invitation. Of those, 88% claimed their curfew enforcement was responsible for reducing youth crime - even though, the Los Angeles Times reported, the survey "did not include a statistical analysis of the effect curfews have had on crime" (Wilgoren and Fiore, 1997). Recently, the Los Angeles Police Department reported that vigorous curfew enforcement, including 101 task forces of 3,600 officers who wrote 4,800 curfew citations to youths in six months, had no effect on reported crime or juvenile violent crime. This report also did not include a scientific comparison with areas that did not enforce curfews (Lait 1998). Surprisingly, given that curfew arrests of California youth have risen fourfold, (from 5,400 in 1989 to 21,200 in 1996), it appears that no systematic study of California's experience with enforcement of status crime and curfew laws has been undertaken to shed light on whether they deter crime. A search turned up only 25 studies of curfews nationwide (only three in California) since 1990. These reached mixed, often diametrically opposite, conclusions, primarily because all examined philosophical issues rather than analytical studies. None adopted a scientific approach of analyzing the effects of curfew enforcement on juvenile crime over time; nearly all focused on just one jurisdiction rather than examining numerous and diverse experiences with curfews; and none compared jurisdictions which enforced curfews to those which did not (Reufle, Reynolds and Brantley, 1997; Harvard Law Review Association, 1997). Without long term, large scale, and controlled statistical analyses, it is impossible to reach even preliminary conclusions as to whether curfew enforcement reduces, increases, or has no effect compared to the myriad other factors that influence juvenile crime rates. The lack of systematic analysis is all the more surprising given that data is readily available to test the effects of curfews on youth crime.

Methodology
Statistics on crimes by type, age of arrestee, year, and county are taken directly from the tabulations by the California Department of Justice's Law Enforcement Information Center (LEIC), annually reported statewide by Crime & Delinquency in California and county wide in "California Criminal Justice Profile 1980-1994," and statewide and by county in the 1995 and 1996 updates. This study uses the LEIC's definition of "youth"
(age 10-17) and "adult" (age 18-69) and estimates of population for each group in calculation of crime rates. The categories of youth crime examined are: all arrests, felonies, violent felonies, homicides, property felonies, and misdemeanors (Division of Law Enforcement, 1978-95; Criminal Justice Statistics Center, 1978-1996). "All arrests" and "misdemeanors" do not include arrests for status (including curfew) violations. Population figures are from the California Department of Finance’s Demographic Research Unit.

Whether a particular police strategy (i.e., enforcement of curfews) is related to higher or lower levels of youth violence is examined by means of a standard correlation analysis of annual changes in arrest rates (called "differencing"). Correlation by the differencing method factors out the artificial patterns natural to trending series by comparing the year-to-year changes in rates of curfew enforcement with year-to-year changes in rates of other crime. This analysis examines whether year-by-year increases or decreases in the rates of police enforcement of curfews affects the corresponding rates of youth crime. Correlations determine whether Item A is related to Item B positively (A rises as B rises, A falls as B falls), negatively (A rises as B falls, A falls as B rises), or not at all.

The formula produces a statistic in which a perfect positive correlation is 1.00, a perfect negative correlation is -1.00, and no correlation is 0. If stronger enforcement of curfew laws against youths over the 1980-96 period is significantly negatively correlated with rates of youth crime in a particular county (that is, more curfew arrests were accompanied or followed by lower levels of youth crime), it could be argued as a working hypothesis that law enforcement strategy reduced crime.

Since curfew laws do not apply to adults, we might expect that enforcement of these laws would affect youth crime rates but not adult crime rates. Thus, both raw youth crime rates and net youth crime rates (expressed as a ratio to adult crime rates) for each year, type of crime, and state/county/city jurisdiction are compared. Three different analyses are conducted:

1. Statewide curfew arrest rates and crime rates separated by race/ethnicity for all youths in aggregate and for California’s four major groups (White non-Hispanic, Hispanic, Black non-Hispanic, and Asian/other non-Hispanic) are compared for the 1978-96 period, the maximum time for which reliable statistics exist. The analysis of six types of crime for all groups in aggregate plus the four racial groups yields 30 separate correlations (six times five) for raw youth crime rates, and 30 for youth crime rates net of adult crime rates.

A statewide comparison of total crime arrests and curfew arrests is also provided. This analysis is intended to examine a possible relationship between raw curfew arrests and overall arrest patterns.

It might be argued that gross statewide statistics would fail to capture local variations. Therefore, two local analyses are also performed:
(2) County curfew arrest rates and youth crime rates are compared for the 12 most populous counties for the 1980-96 period; again, the maximum time for which reliable figures are available for all counties. The counties examined are Alameda, Contra Costa, Fresno, Los Angeles, Orange, Riverside, Sacramento, San Bernardino, San Diego, San Francisco, Santa Clara, and Ventura (see appendix tables). Together, these counties totaled 22 million in population in 1995 and accounted for 90% of the state’s arrests. This analysis of 12 counties for six types of crime yields 72 separate correlations for raw, and 72 for net, youth crime rates. San Jose and San Francisco are compared separately.

(3) Local curfew and youth crime rates and trends for all cities over 100,000 population in Los Angeles and Orange counties, 21 in all, are compared for the 1990-96 period (see appendix tables for list). This analysis examines felony crime rates and burglary rates, the latter due to the fact that burglary is often cited as particularly affected by curfew and status law crackdowns. This analysis of 21 cities for two major types of crime (felonies and burglaries) yields 42 separate correlations over time for the 1990-96 period, and 12 separate correlations for the two types of crime for each of the six years, 1990 through 1995, the latter the most recent available. A separate analysis of Monrovia is presented as a case study.

Results

Statistical analysis provides no support for the proposition that stricter curfew enforcement reduces youth crime either absolutely or relative to adults, by location, by city, or by type of crime. Curfew enforcement generally had no discernible effect on youth crime. In those few instances in which a significant effect was found, it was more likely to be positive (that is, greater curfew enforcement was associated with higher rates of juvenile crime) than negative.

(1) Statewide analysis.

Of the 30 correlations of statewide rates of youth crime by race/ethnicity for the 1978-96 period, seven were significantly positive, none were significantly negative, and 23 showed no effect (see table one). Of the 30 correlations of net youth crime rates compared to adult rates, four were significantly positive, none were negative, and 26 were not significant.

Greater curfew enforcement was associated with significantly higher absolute rates of misdemeanor arrest for whites, Hispanics, Asians, and all youth in aggregate. Curfew enforcement was also associated with higher rates of violent crime by Asian youth and with higher rates of all types of arrest (subtracting curfew arrests) among white and Asian youth. No significant effect was found on rates of juvenile arrests for property crime, violent crime, homicide, all felonies, or all offenses.
When stricter curfew enforcement in each year was compared to juvenile crime rates in the following year (on the theory that perhaps curfew laws have delayed effects), no significant effects were found for either absolute or net rates of juvenile crime (compared to adults'). In only two of 60 comparisons were significant results found, and both were positive. Conclusion: curfew enforcement does not reduce youth crime over time for any racial/ethnic group on a statewide basis.

(2) Correlations by county over time and by locale.

Of 72 correlations for absolute rates of six types of crime in the 12 largest counties for 1980-96, five were significantly positive, none were negative, and 67 were not significant. A similar pattern emerged when 72 correlations for net rate of six types of crime in the 12 largest counties for 1980-96 were examined. Four were significantly positive, none were negative, and 68 were not significant.

Curfew arrest rates were positively correlated with youth misdemeanor arrest rates as a whole, both on an absolute and net basis. Riverside and San Diego counties showed significant increases in juvenile misdemeanor arrests correlated with greater curfew enforcement, while San Diego showed a greater increase in violence arrests, and San Francisco in felony and total arrests. Orange County showed significantly higher net rates of youth property crime and total arrests compared to adult rates associated with greater curfew enforcement; Riverside showed higher net levels of juvenile misdemeanor arrests and Santa Clara County had higher rates of youth homicide. No county showed a significant decrease in any kind of youth crime, either on an absolute or net basis, associated with greater curfew enforcement.

(3) County-by-county comparisons.

It might be argued that in locales with stronger status/curfew law enforcement, youth crime levels (rates) would be reduced. California counties are laboratories for the study of this question. Compared to the state average, Fresno (2.1 times higher), San Diego (1.8), Los Angeles (1.6), Ventura (1.6) and Santa Clara (1.2) counties have curfew arrest rates dozens of times higher than San Francisco (0), Sacramento (0.01), Alameda (0.09) and Riverside (0.25). Youth violent crime levels in 1995-96 varied sixfold, from 1,779 per 100,000 youths in San Francisco County to 285 in Riverside. Youth property felony rates range from 1,727 in San Francisco and 1,685 in Fresno to 689 in Riverside (San Francisco’s rates are elevated because it is the only county wholly comprised of a city). Relative to adults, the youth felony arrest rate is 1.51 times higher in Santa Clara and 1.44 times higher in Fresno, twice the net youth felony rate of Riverside (0.75). Rates of status crime arrests varied twentyfold, from 1,363 per 100,000 in Fresno County and 1,300 in San Diego to 60 in Sacramento.

If strong curfew enforcement reduces youth crime, net youth crime rates relative to adult crime rates in high curfew enforcement counties should be lower than in low curfew enforcement counties. Again, this is not the case. In 1995-96, greater rates of curfew enforcement are associated with higher levels of youth property crime and no significant
effect on other types of crime. In particular, much publicized curfew crackdowns in Fresno, San Diego and Santa Clara counties were followed by higher levels of youth crime in every category, both absolutely and relative to adult crime. Conversely, low enforcement counties such as Riverside and Sacramento have lower rates of youth crime relative to adult crime. Other counties show mixed results. Overall, no significant trends are evident.

(4) Correlations by city over time and location.

Cities in Los Angeles and Orange Counties show widely varying patterns of curfew enforcement. Burbank, Fullerton, and West Covina display high rates of status and curfew arrest; Pasadena and Anaheim very low rates; Los Angeles and Huntington Beach show rapidly increasing rates in the mid-1990s after low rates of enforcement in the early part of the decade. Even given these dramatic differences, no consistent effects of curfew arrest on local youth crime could be found. While more significant results were found due to small numbers and extreme values produced by certain cities, they were more likely to show curfew and status crime enforcement associated with higher levels of youth felony and burglary arrest than with lower levels. Monrovia in particular showed youth crime increases associated with its daytime curfew.

Of the 42 correlations of curfew arrest rates with youth crime rates in 21 major Los Angeles and Orange County cities for 1990-95, nine were significantly positive, seven were negative, and 26 were not significant.

Similar results were found for the 12 correlations comparing local status and youth felony and burglary arrest rates by year for 1990 through 1995.

The year-by-year analysis shows that in no case did cities with stricter curfew enforcement show lower than expected levels of juvenile crime compared to corresponding adult crime rates; the opposite was more likely to be the case.

Discussion

Statistical analysis does not support the claim that curfew and other status enforcement reduces any type of juvenile crime, either on an absolute (raw) basis or relative to adult crime rates. The consistency of results of these three different kinds of analysis of curfew laws point to the ineffectiveness of these measures in reducing youth crime. California counties display a number of interesting extremes.

In 1996, for example, Los Angeles arrested 10,800 youths for curfew violations, ten times more than in 1987. Supporters cite the 30% decline in youth crime from 1990 to 1994. Yet adult crime declined at the same rate, in almost identical fashion, for each category. The bottom line was that LA’s rate of youth felonies relative to adults’ (which had previously fallen rapidly from 1980 to 1987) was the same in 1996 as it was a decade earlier.
Also, a comparison of San Francisco and San Jose reveals similar patterns. Despite San Jose’s much touted curfew law, no effect on youth crime trends can be demonstrated. The San Jose figures contrast with San Francisco, where curfew arrests were almost nonexistent during this same period. As San Francisco’s curfew arrests went down, its juvenile arrest rate declined.

Finally, of much greater significance in crime control is the fact that rates of serious crime among youths are strongly correlated with those of adults around them, both by local area and over time. Significant positive correlations (that is, youth and adult crime rates rise and fall together) were found between rates of youth and adult violent, property, felony, and homicide arrests for the 12 largest counties and for the state as a whole (see table 7) (Criminal Justice Statistics Center, 1978-1996).

Youth and adult felony rates were correlated for all four major racial groups, as were violent and property crime arrests for all racial groups except whites, homicide rates for whites and Hispanics, and misdemeanor rates for Asians. Where adult crime rises or falls, youth crime rises or falls in tandem; where adults display a high rate of violent crime arrests, youths also display a high rate of violent crime arrests.

Law enforcement authorities have stated that they enforce curfew laws evenhandedly. For most major counties, this appears to be true. Arrest rates of white (non-Hispanic) youth are reasonably similar to those of Hispanics, blacks, and Asians. However, four large counties display discrepant racial/ethnic statistics. In Ventura County, curfew arrests of Hispanic and black youths are 8.4 times and 7.4 times higher, respectively, than those of white youths. In Fresno and Santa Clara counties, Hispanic youths are five times, and black youths three times, more likely to be arrested for curfew violations than are white youths. Los Angeles authorities arrest Hispanic and black youths for curfew violations at rates two to three times that of whites.

It could also be argued that greater curfew enforcement evidences more proactive policing which, in turn, might result in more juvenile arrests for other offenses. In this sense, curfews would be seen as serving an incapacitation goal by selectively detaining youths likely to commit crime. Although this possibility cannot be categorically refuted with this data, it seems implausible as a general explanation. First, the chief effect of greater curfew enforcement is not its effect on youth crime. If curfew arrests signaled more proactive policing, and greater police contacts with curfew violators who may also be offenders in other regards, we would expect a consistent increase in non-curfew arrests coincident with curfew arrests. This is not the case; effects are inconsistent. Second, in Monrovia, the months showing higher levels of curfew arrests coincided not only with more juvenile arrests for other offenses, but with higher levels of criminal activity as measured by crimes reported to police. More reported crime is the opposite of the effect expected if curfews served an incapacitating goal. Finally, examination of a random sample of Monrovia’s police logs of several dozen curfew citations reveals only one that could have coincided with arrest for an additional offense, and it is not clear which offense provided police attention.
Conclusion

In recent years curfew laws are frequently cited by public officials and law enforcement authorities as essential elements in reducing crime in their communities. Despite widespread endorsement of this policy approach, virtually no substantive analysis, prior to this study, has been completed that tests the hypothesis that tougher curfew enforcement reduces juvenile crime. Through an analysis of official data, this research compared the relative crime rates of jurisdictions with strict curfew enforcement and jurisdictions with less curfew enforcement. In addition, the study examined the effects of curfew enforcement on specific types of crime and the impact of curfew enforcement on juvenile crime rates relative to adults.

The current available data provides no basis to the belief that curfew laws are an effective way for communities to prevent youth crime and keep young people safe. On virtually every measure, no discernable effect on juvenile crime was observed. In fact, in many jurisdictions serious juvenile crime increased at the very time officials were toting the crime reduction effects of strict curfew enforcement.

Curfews also may be regarded as a "panacea" approach to juvenile crime. Panacea approaches, especially those perceived to entail little cost, usually have been found satisfying to proponents but wanting in terms of effect. For example, independent replications of Scared Straight, a program that employs verbal confrontations of juvenile delinquents by menacing prisoners, disputed the program's 90% success rate claim. Finckenauer’s evaluations found that not only did Scared Straight sessions (which involved swaggering convicts loudly threatening youths with violence and mayhem should they be imprisoned) fail to deter delinquency, the only question was whether the session provoked increased criminality (1982).

The research suggests that the solutions to juvenile crime often championed by law enforcement agencies and public officials must be closely examined. Based on the current evidence, a crime reduction strategy founded solely on law enforcement intervention has little effect and suggests that solutions are more complex and multifaceted. Future policy and research should focus on the potential crime reduction effects of prevention strategies that provide a comprehensive array of services, opportunities, and interventions. While this approach is likely to require a substantial infusion of public resources, the long term benefits may prove worth the investment.

References


