Richard C. Harruff,[1] *M.D., Ph.D.; Amy L. Llewellyn,*[1] *M.D.; Michael A. Clark,*[1] *Ph.D., M.D.; Dean A. Hawley,*[1] *M.D.; and John E. Pless,*[1] *M.D.*

Firearm Suicides During Confrontations with Police

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ABSTRACT: We reviewed the case records of suicides in Marion County, Indiana (Indianapolis) and in surrounding counties from 1984 through 1992. Out of 1203 suicides, there were 14 in which armed, on-duty police officers were confronting, pursuing, or apprehending the subject of the death investigation. All subjects were male, and the peak age range was 30 to 34 years. The head, especially the right temple, was the usual site of the fatal wound. More than half of the incidents started as domestic disputes with a wife or girlfriend. Many of the others occurred when police officers pursued or arrested a suspect wanted for a previous felony. Ethanol was involved in less than half of the cases, and drugs were not a factor. In at least four cases, the presence of police was a factor that precipitated the suicide. The histories of the 14 cases demonstrate the potential for controversy and the challenges for forensic scientists investigating suicides during police confrontations.

KEYWORDS: pathology and biology, forensic science, suicide, police confrontations, deaths in custody, autopsy, gunshot wounds

Deaths that occur in association with police activities represent an important topic in the forensic literature. Studies have examined fatalities caused by firearms [*1–3*], neck holds [*4*], and acute drug reactions [*5*] occurring in police pursuits or apprehensions and have addressed the risk of fatalities in high-speed automobile chases [*6*] and with the use of chemical agents [*7*] or electrical devices [*8*] to subdue suspects. Deaths occurring in police custody have also received much attention [*9–16*]. Suicides in custody are especially important because the prison or jail environment is reasonably controlled and the safety of prisoners is the legal responsibility of the institution.

One aspect of police-associated deaths that has not received widespread attention is the incidence of suicides that occur during confrontations with police. Occasionally an armed suspect being pursued, apprehended, or otherwise confronted by police officers suddenly turns his gun on himself. While there is a temptation to assume that these deaths are straightforward suicides, witnessed by police officers willing to testify to the exact circumstances, they pose a special investigative challenge for the forensic pathol-

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[1] Associate Professor of Pathology, Fellow in Forensic Pathology, Professor of Pathology, Associate Professor of Pathology, and Culbertson Professor of Pathology, respectively, Department of Pathology, Indiana University School of Medicine, Indianapolis, IN.

ogist. There is the potential that testimony by the law enforcement officers involved is rejected by the family, the media, and the public.

Although all suicides require attention to detail, those occurring when police are involved deserve special attention. Recognizing a need to address this issue, we undertook a retrospective study of firearm suicides that occurred during police confrontations. The objectives were to analyze the circumstances that lead to these deaths and to examine the investigations that established the manner of death.

Methods and Materials

The population base for this study includes Marion County (Indianapolis) and the surrounding counties in central Indiana. Marion County is mostly urban, with a population of 797,000 according to the 1990 census. The racial distribution is 77% white and 23% classified black or other. The six counties surrounding Marion County are a mixture of rural areas and a few smaller cities. For this study, we reviewed the circumstantial summaries of firearm suicides to identify cases in which police were present in the context of pursuit, confrontation, or apprehension of the subject who committed suicide. For each case identified, we abstracted the case history, including relevant autopsy findings, toxicology results, and results of other laboratory investigations.

Results

Altogether, there were a total of 12,347 records of death investigations (11,360 from Marion County and 987 from surrounding counties) dating from 1984 to 1992. A total of 1203 cases were classified as suicide, and of these, 63% resulted from firearm injuries. There were 14 cases of firearm suicides in which armed and on-duty police officers were confronting, pursuing, or apprehending the subject of the death investigation, representing approximately 1% of all suicides and 2% of all firearm suicides. Ten of the cases were from Marion County and 4 were from surrounding counties. The case histories, along with autopsy findings, toxicology results, and results of other investigations are summarized in the following.

Summary of Cases

The major features of the 14 cases are presented in Table 1. All subjects were male, 72% were in the age range of 20 to 39 years, and the peak age range was 30 to 34 years. The subject was white in 71% of the cases. All wounds were contact gunshot wounds. The most common anatomic region for the fatal wound was the head (78%), and the most common specific site was the right temple (57% of all cases). The circumstances that lead to the fatal confrontation originated as a marital or relationship disturbance in 57% of the cases. In 29%, the subject was wanted for a crime.

All of the suicides were committed with handguns. Bullets were recovered at autopsy in half of the cases. In the other half, the bullets exited the body. In two cases where bullets were not recovered (Cases 7 and 8), the muzzle stamp abrasion around the entrance wound matched the gun recovered at the scene (Figs. 1 and 2) and, in Case 8, the bullet recovered at the scene matched the exit wound in the skull. Firearms testing found no inconsistencies between the projectile and the weapon. The hands of three subjects were tested for gunshot residue. One case was positive by scanning electron microscopy with energy dispersive X-ray analysis (SEM/EDX); one was positive by atomic absorption spectrophotometry (AAS); and one was negative by AAS. Injuries other than the fatal gunshot wound present in six cases were all compatible with the scene investigations and reports of the circumstances.

TABLE 1—*Summary statistics of 14 cases.*

	N	Percent
Age, years		
<20	3	21
20–24	2	14
25–29	2	14
30–34	4	29
35–39	2	14
>40	1	7
Race		
White	10	71
Black	4	29
Site of fatal gunshot wound		
Right temple	8	57
Left temple	1	7
Midforehead	1	7
Mouth	1	7
Chest	3	21
Circumstances leading to confrontation		
Domestic disturbance	8	57
Subject suspected of felony	4	29
Other	2	14
Bullet recovered from body		
Bullet recovered at autopsy	7	50
Bullet exited from body	7	50
Gunshot residue on subject's hands		
GSR positive	2	14
GSR negative	1	7
GSR not tested	11	79
Other injuries		
Other injuries present	6	43
No other injuries	8	57
Blood alcohol		
Negative, trace	7	50
>trace–100 mg/dL	2	14
>100 mg/dL	3	21
Not tested	2	14

Alcohol and drug analyses were performed in all cases except two subjects who were hospitalized. In three cases (6, 9, and 11) the blood ethanol concentrations exceeded 100 mg/dL. All but two cases were negative for drugs. A small amount of diphenhydramine was found in Case 7, and cannabinoids were present in Case 14.

Case Histories

Case 1—A 23-year-old black male was holding his 15-year-old girlfriend hostage in her apartment at gun point. The police surrounded the area, fired tear gas into the apartment, and entered to find both the subject and girlfriend dead of gunshot wounds. Autopsy of the subject found a near contact gunshot wound of the right temporal scalp and recovered one bullet from the left parietal cerebrum. A contusion was present on the right cheek. Toxicology found no drugs or alcohol.

Case 2—A 17-year-old white male was wanted for an auto parts burglary. The police pursued him to an interstate highway rest area where there was a standoff that lasted for two and a half hours, ending when the subject shot himself with a .22 caliber handgun.

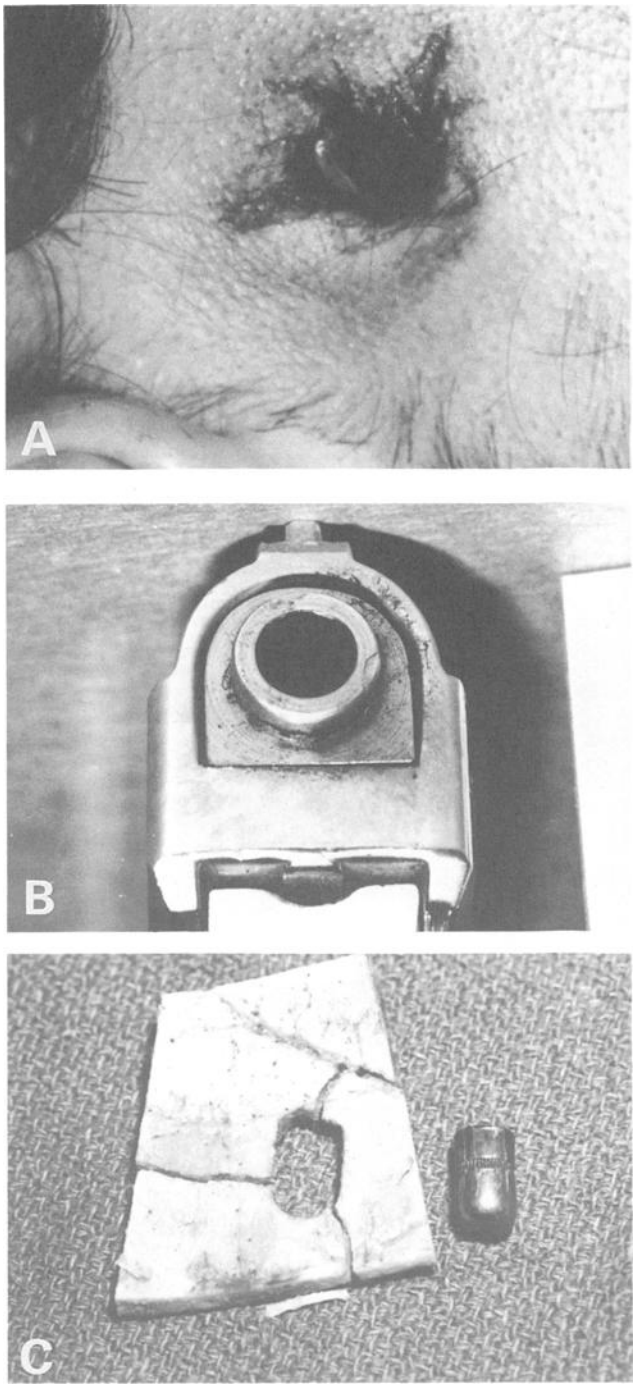

FIG. 1—*Injuries, weapon, and bullet from Case 7.* A. *Contact entrance wound of right temporal scalp with associated muzzle stamp abrasion.* B. *Weapon recovered from scene showing muzzle features that correspond to the entrance wound.* C. *Portion of left parietal skull containing exit wound alongside bullet recovered from scene.*

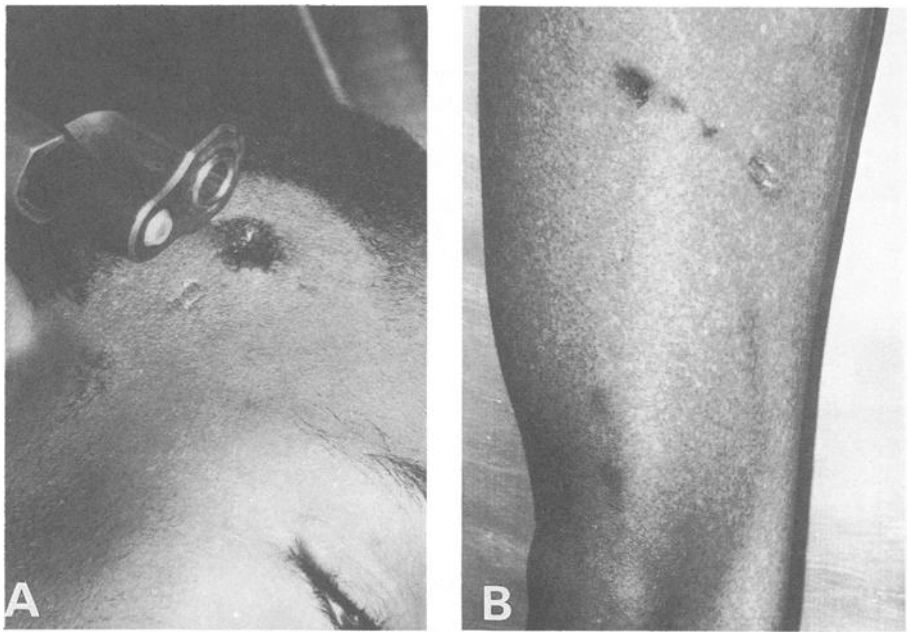

FIG. 2—*Gunshot wounds and weapon from Case 8.* A. *Contact entrance wound of right temporal scalp with ejector rod mark beneath wound compared with weapon recovered from scene.* B. *Tunneling gunshot wound of right thigh showing contact entrance wound at anterior aspect of thigh and exit wound at medial aspect. The wound is consistent with a shot fired when the right hand, still holding the gun, dropped down after the head shot. Healing abrasions are present above the knee.*

Autopsy found a contact gunshot wound of the right temporal scalp and recovered one bullet from the brain. Toxicology was negative for alcohol and drugs.

Case 3—A 16-year-old black male with a previous criminal history was arrested for auto theft. After three police officers searched him, they handcuffed him with his hands *behind* his back, placed him into the back seat of a police car, and transported him to the juvenile detention center without his seat belt fastened. At the parking lot of the center, witnesses heard a "pop" and saw the subject slump over. One officer opened the car door and saw the subject gripping a .32 caliber Harrington & Richardson revolver in his right hand and the cuffed hands in *front* of his body. Autopsy found a hard contact gunshot wound of the right temporal scalp and one bullet in the left temporal scalp. Toxicology found no drugs or alcohol. In police interviews, friends stated that the subject had declared some days earlier that he would never allow himself to be imprisoned. The friends also indicated that the gun probably belonged to the subject, which may have been hidden in his sock. At the time of the suicide, the subject was wearing long baggy socks that apparently were not searched. For purposes of demonstrating that this suicide was possible, several cadets similar to the subject in build had their hands cuffed in back and were placed into the rear seat of a police car. Within a few seconds, every one of them could step through his arms, remove a gun from his sock and make muzzle contact at the right temple.

Case 4—A 27-year-old white male shot his wife who escaped and survived. When police arrived at the scene, the subject held them at bay from inside his home. Police

heard one shot fired but continued to see him moving around inside the residence. The SWAT team fired tear gas and concussion grenades into the house, causing a fire. Officers entering the house found the subject in a back room, still alive, with a gunshot wound of the head. He expired 4 days later. Autopsy found a contact gunshot wound of the right temporal scalp and Glaser Safety Slug pellets in the brain. There were full thickness burns covering 50% of the total body surface area and soot in the larynx. Toxicology was not performed.

Case 5—A 35-year-old white male, an unemployed alcoholic with a terminally ill mother, was separated from his wife while their divorce was pending. Armed with a rifle, he attempted to enter the house where the wife was staying with her sister. The brother-in-law blocked his entrance while the women called for help. When police arrived, the subject threatened one officer with the rifle, then ran around the corner of the house followed by an officer who saw him squat down and shoot himself with a handgun. Autopsy found a contact gunshot wound of the right temporal scalp and an exit wound of the left parietal scalp. Toxicology was not performed due to multiple organ donation.

Case 6—A 32-year-old white male with a history of depression and alcoholism was threatening his wife with a gun inside their house while his father flagged down a police car. As the officers approached the house and attempted to speak with the subject, they heard a shot fired. They entered the house and found him dead on the living room floor with a Colt .45 caliber semiautomatic pistol in his left hand. Autopsy revealed a contact gunshot wound in the mouth and an exit wound of the posterior head. Toxicology found blood ethanol of 269 mg/dL but no drugs. Specimens collected from the hands were negative for gunshot residue by AAS.

Case 7—A 50-year-old white male was wanted on warrants for check deception and forgery. Police recognized his car and there ensued a high-speed chase on the interstate. With the police in pursuit, the subject's car suddenly swerved off the roadway, crossed the median and opposing lanes, went down an embankment, and traveled greater than 100 yards across a field before striking a tree and coming to rest. The subject was found dead in the car where it was assumed he had died of blunt force injuries sustained in the crash. Autopsy revealed a hard contact gunshot wound of the right temporal scalp and an exit wound of the left posterior parietal scalp. There were abrasions and contusions of the forehead, chest and extremities, a right rib fracture, and small cuts on the hands. Toxicology was positive for trace ethanol and a small amount of diphenhydramine. After the gunshot wound was discovered, the police searched the car and found a Raven Arms .25 caliber semiautomatic pistol, a holster, and one spent bullet. The muzzle imprint around the entrance wound matched the gun, and the bullet matched the hole in the left posterior parietal skull (Fig. 1*A*, *B*, and *C*).

Case 8—A 22-year-old black male lost control of his car and collided with a car traveling in the opposite direction. The subject got out of his car and checked on the other driver, an elderly man, who was not injured but was unable to exit because his seat belt had jammed. The subject returned to his own car where police officers later found him dead and slumped over. A Ruger 9 mm semiautomatic pistol, two fired cartridge cases, and two bullets were recovered from the scene. The subject had just moved from another city to take a job as a private security guard and had a license to carry the gun in his possession. His fiancée had died five months earlier, but his aunt denied any sign of depression. In his possession was a paper with a list of good things and bad things about himself and a question asking God what he should do next. Autopsy found a hard contact gunshot wound of the right temporal scalp with an abrasion that matched the gun and an exit wound of the left parietal scalp (Fig. 2*A*). There was also a contact gunshot wound of the right anterior thigh with an exit wound of the right medial thigh

(Fig. 2*B*). Toxicology found no drugs or alcohol. Specimens collected from the hands were positive for gunshot residue by AAS.

Case 9—A 27-year-old white male was running around, naked, in a public park at night. The police, responding to a telephone complaint, chased him to his house where he ran inside. As the police entered the home, they heard a "pop" and found him dead in a back bedroom with a 9 mm semiautomatic pistol nearby. Autopsy revealed a contact gunshot wound of the mid forehead and recovered one bullet from the left posterior subdural space. There were abrasions with grass-staining on both knees, the left elbow and left side. Toxicology found 190 mg/dL blood ethanol but no drugs.

Case 10—A 32-year-old while male was harassing his wife where she was staying with a female friend while their divorce was pending. The police were called twice but the subject left before they arrived. He then broke into the house, fired shots, and threatened the wife's friend with a gun. When officers arrived this time, he was leaving in a van. They chased him to his residence where he got out of his van and ran to the back door of his house carrying a gun. Over the noise of the sirens, officers yelled for him to drop the gun, then saw him fall face-down. They removed his gun, an Auto-Ordnance .45 caliber semiautomatic pistol, sprayed him with a chemical agent, and handcuffed him. When they turned him over, they saw a bloody chest wound and took him to the hospital where he died. Subsequent search of his home found "Post-it" notes referring to suicide. Autopsy found a contact gunshot wound of the chest at the level of the xyphoid and an exit wound of the back. Toxicology found a blood ethanol of 44 mg/dL but no drugs. Specimens collected from the hands were positive for gunshot residue by SEM/EDX.

Case 11—A 34-year-old while male with a history of drug problems was arguing with his ex-wife in a parking lot when police were called to the scene. Officers arrived as he was attempting to leave in a pickup truck and ordered him to show his hands. He refused, pulled a .380 caliber semiautomatic pistol to the right side of his head and fired it. Autopsy found a contact gunshot wound of the right temporal scalp and an exit wound of the left scalp. Toxicology found a blood ethanol of 142 mg/dL but no drugs.

Case 12—A 38-year-old black male argued with his 33-year-old girlfriend in a parking lot and shot her dead. He threatened other people with the gun, then ran back into his residence. The SWAT team was called and entered the apartment after two hours. They found him dead on the floor with a Star Interarms .45 caliber semiautomatic pistol on the bed. The gun was cocked and the magazine empty. Autopsy of the subject found a near contact gunshot wound of the chest at the level of the central sternum and an exit wound of the left back. Toxicology found no drugs or alcohol.

Case 13—A 19-year-old white male was a suspect in a five hour crime spree involving armed robberies, a murder, and a series of random shootings. A lengthy foot pursuit by police ended in a shoot-out with the subject as he was hiding in the bushes next to a building. The police made an audio tape recording of the entire confrontation through the open microphone of an officer's radio. They heard one shot and returned fire, striking the subject several times. He expired at the hospital twelve hours later. Autopsy revealed a contact gunshot wound of the left temporal scalp. The bullet recovered matched the subject's gun, which was a small caliber semiautomatic pistol. In addition, there were police-inflicted gunshot wounds of the back of the head (two, both superficial grazing wounds), left wrist (two), left chest (superficial), and right shoulder. Autopsy toxicology found a blood ethanol of 23 mg/dL but no drugs.

Case 14—A 32-year-old white male, depressed and going through a divorce, was threatening his wife with a gun. Members of his family called the police, and when

officers arrived he barricaded himself in the bathroom. The SWAT team entered the house and kicked in the bathroom door. Then, as two officers watched, the subject shot himself in the chest with a .38 caliber revolver. The body was received for autopsy with handcuffs on but no associated premortem injuries of the wrists. Autopsy found a contact gunshot wound of the left chest and a bullet in the subcutaneous tissue of the back. Toxicology found cannabinoids and no alcohol.

Discussion

The 14 cases presented here indicate that suicides during police confrontations are not rare. Approximately 2% of all firearm suicides occurred in situations where on-duty police officers were pursuing or apprehending the subject. During the same time period there were 26 fatal police-action shootings. Thus, suicides during police confrontations occurred at roughly half the frequency of police-action homicides.

All of the subjects were men. In more than half of the cases the incident leading to the suicide started as an apparent domestic dispute in which the subject was harassing, arguing, or fighting with his wife or girlfriend. In over a quarter of the cases, the subject was being pursued or apprehended for a felony. Alcohol intoxication was a factor in a minority of cases, and drugs were not a factor in any case.

In all cases the subject shot himself with a handgun. The sites of the fatal gunshot wounds were similar to those reported in previous studies of firearm suicides [*17,18*]. In half of the cases, autopsy recovered a bullet for firearms examination. In two of the cases where no bullet was recovered from the body, the muzzle stamp abrasion around the entrance wound matched the subject's gun. In one, the exit wound of the skull matched the bullet recovered from the scene, which in turn matched the bullets from the subject's gun. Injuries other than the gunshot wound but consistent with the circumstances surrounding the fatal shot were present in nearly half of the cases. Gunshot residue testing was not a major factor in any case. Two out of the three cases tested were positive for gunshot residue, which is a positive rate similar to suicides reported previously [*18–20*].

The motivations for the suicides varied. In only three cases (Cases 8, 9, and 10) were there clear indications that the subjects were contemplating suicide before police confronted them. In four cases (Cases 2, 3, 7, and 13) there were no indications that the subjects were considering suicide until the police appeared and arrested or pursued them. In seven cases, the subjects' behavior indicated that they were emotionally distraught but not necessarily suicidal, and the police confrontations may have precipitated the suicides. The contribution of police confrontation to unexpected and irrational behavior in fleeing or cornered suspects has been addressed before [*6,7*].

Of all the different modalities of death that occur in the context of the criminal justice system, suicides in custody are most closely related to the precustody suicides reported here. There have been several studies of deaths in custody showing that suicide is one of the most common causes of death in prisons and jails [*10–16*]. Furthermore, the rate of suicide in prisoners is much higher than in the general population [*11,14*]. Various risk factors have been identified. Most consistently, the suicides usually occur within the first few hours or days of incarceration [*11,12,16*]. Alcohol or drug abuse is another consistent risk factor [*10,13,16*]. Less consistent is the type of prisoner with the greatest chance of committing suicide. In some studies, suicides are more common in prisoners charged with nonviolent crimes [*11,13*] while in other studies suicides are more common in violent offenders [*10,11,16*]. There is general agreement that suicides in custody are preventable [*10–16*]. The potential for prevention is underscored by a review of police custody deaths in Denmark, which found no suicides in the five year period of study [*15*].

Two of the cases reported here are exceptional. In Case 7, the subject apparently shot himself in the head while driving a car at high speed with police in pursuit. A similar case has been reported only once previously [*21*]. In Case 3, the subject shot himself in the head while handcuffed in the back seat of a police car. This appears to be a unique case in the forensic literature.

Suicides during police confrontations carry the potential for public controversy, adverse media attention, accusations of police brutality, and allegations of cover-up. The actions of an emotionally disturbed individual who is suddenly confronted with the deadly force of police officers or the prospect of incarceration are extremely unpredictable, and suicide is only one of the actions that such an individual may choose. In certain cases the presence of police precipitates the suicidal action. Even when a suicide appears imminent, police officers do not always react in a manner that might prevent the occurrence [*22*]. In two of our cases (Cases 4 and 13), the officers continued to attack the subject even after the subject shot himself. For the forensic pathologist and other investigators, there is the responsibility to document the injuries and collect evidence in an objective manner, recognizing the potential for controversy. Although public perception and media bias are beyond the control of forensic scientists, careful attention to all details of death investigation is the best way to preserve the public trust.

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Address requests for reprints or additional information to
Richard C. Harruff, M.D., Ph.D.
Medical Examiner Office
325 Ninth Avenue
Seattle, WA 98104