U.S. DEPARTMENT OF JUSTICE
NATIONAL DRUG INTELLIGENCE CENTER

The Economic Impact of Illicit Drug Use on American Society

2011

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U.S. DEPARTMENT OF JUSTICE
NATIONAL DRUG INTELLIGENCE CENTER

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April 2011

All costs reported in red italics are in thousands.

Acknowledgement

This publication was sponsored by the United States Department of Justice, National Drug Intelligence Center (NDIC). It was prepared under agreement W909MY-09-P-0031 with Carnevale Associates, LLC. Ronald Simeone, Simeone Associates, Inc., served as the Principal Investigator, and Matthew Maggio served as the Project Manager for NDIC.

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National Drug Intelligence Center

2011 *The Economic Impact of Illicit Drug Use on American Society*. Washington D.C.: United States Department of Justice.

Electronic Access to Publication

This document can be accessed electronically through the following World Wide Web address: http://www.justice.gov/ndic/

Originating Office

United States Department of Justice

National Drug Intelligence Center

Printed in April 2011

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U.S. Department of Justice
National Drug Intelligence Center

The Economic Impact of Illicit Drug Use on American Society

Product No. 2011-Q0317-002

Executive Summary

The National Drug Intelligence Center (NDIC) prepares an annual National Drug Threat Assessment (NDTA) that provides federal policymakers and senior officials with a comprehensive appraisal of the danger that trafficking and use of illicit drugs pose to the security of our nation. To expand the scope of its NDTA, and to provide the Office of National Drug Control Policy (ONDCP) and other federal officials with a broad and deep understanding of the full burden that illicit drug use places on our country, NDIC has prepared this assessment—*The Economic Impact of Illicit Drug Use on American Society.* The assessment is conducted within a Cost of Illness (COI) framework that has guided work of this kind for several decades. As such, it monetizes the consequences of illicit drug use, thereby allowing its impact to be gauged relative to other social problems.

In 2007, the cost of illicit drug use totaled more than **$193 billion**.[1] Direct and indirect costs attributable to illicit drug use are estimated in three principal areas: crime, health, and productivity. Each of these areas has several components, which appear as rows in the Statistical Summary table presented on the following page. Because it is possible to characterize productivity lost to drug-induced incarceration and drug-induced homicide as either crime or productivity costs, a "scenario" is provided for each method of accounting—and these scenarios appear as columns (a) and (b) of the Statistical Summary table.

(a) Incarceration and homicide components of Productivity not included in Crime. This may be considered the "base model" in the analysis. Since some productivity is lost to crime (as when incarceration or homicide ensues), these elements may be treated as either crime costs or productivity costs. The numbers in this column parse the estimates so that all lost productivity is treated as a productivity cost. Thus:

- Crime includes three components: criminal justice system costs (*$56,373,254*), crime victim costs (*$1,455,555*), and other crime costs (*$3,547,885*). These subtotal *$61,376,694*.
- Health includes five components: specialty treatment costs (*$3,723,338*), hospital and emergency department costs for nonhomicide cases (*$5,684,248*), hospital and emergency department costs for homicide cases (*$12,938*), insurance administration costs (*$544)*, and other health costs (*$1,995,164*). These subtotal *$11,416,232*.
- Productivity includes seven components: labor participation costs (*$49,237,777*), specialty treatment costs for services provided at the state level (*$2,828,207*), specialty treatment costs for services provided at the federal level (*$44,830*), hospitalization costs (*$287,260*), incarceration costs (*$48,121,949*), premature mortality costs (nonhomicide: *$16,005,008*), and premature mortality costs (homicide: *$3,778,973*). These subtotal *$120,304,004*.

1. This is the most recent year for which data are available.

All costs reported in red italics are in thousands.

Statistical Summary

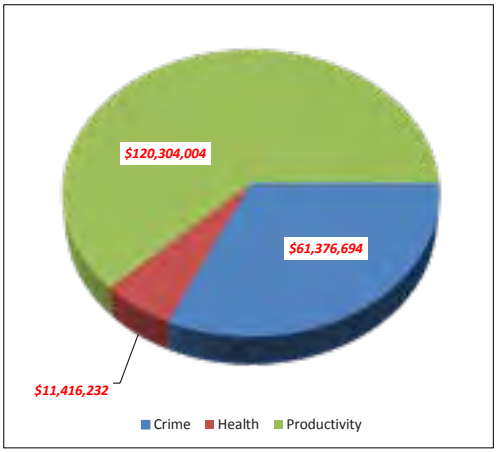
Crime	(a)	(b)
Criminal Justice System	*$56,373,254*	*$56,373,254*
Crime Victim	*$1,455,555*	*$1,455,555*
Personal	*$134,864*	
Property	*$1,320,691*	
Other	*$3,547,885*	*$3,547,885*
Productivity	*$0*	*$51,900,922*
Subtotal	*$61,376,694*	*$113,277,616*

Health	(a)	(b)
Specialty Treatment	*$3,723,338*	*$3,723,338*
State	*$3,368,564*	
Federal	*$354,774*	
Hospital and Emergency Department		
Non-homicide	*$5,684,248*	*$5,684,248*
Hospital	*$5,523,189*	
Emergency Department	*$161,059*	
Homicide	*$12,938*	*$12,938*
Hospital	*$12,700*	
Emergency Department	*$238*	
Insurance Administration	*$544*	*$544*	*$544*
Other	*$1,995,164*	*$1,995,164*
Federal Prevention	*$803,761*	
Federal Research	*$569,340*	
AIDS	*$622,063*	
Subtotal	*$11,416,232*	*$11,416,232*

Productivity	(a)	(b)
Labor Participation	*$49,237,777*	*$49,237,777*
Males	*$34,998,122*	
Females	*$14,239,655*	
Specialty Treatment (State)	*$2,828,207*	*$2,828,207*
Males	*$1,981,428*	
Females	*$846,779*	
Specialty Treatment (Federal)	*$44,830*	*$44,830*
Males	*$43,252*	
Females	*$1,578*	
Hospitalization	*$287,260*	*$287,260*
Males	*$178,016*	
Females	*$109,244*	
Incarceration	*$48,121,949*	*$0*
Males	*$44,048,432*	
Females	*$4,073,517*	
Premature Mortality (Non-Homicide)	*$16,005,008*	*$16,005,008*
Males	*$11,710,119*	
Females	*$4,294,889*	
Premature Mortality (Homicide)	*$3,778,973*	*$0*
Males	*$3,089,080*	
Females	*$689,893*	
Subtotal	*$120,304,004*	*$68,403,082*

Total	*$193,096,930*	*$193,096,930*

(a) Incarceration and homicide components of Productivity not included in Crime



(b) Incarceration and homicide components of Productivity included in Crime

All costs reported in red italics are in thousands.

Taken together, these costs total *$193,096,930*, with the majority share attributable to lost productivity. The findings are consistent with prior work that has been done in this area using a generally comparable methodology (Harwood et al., 1984, 1998; ONDCP, 2001, 2004). It is important to note that there is no double-counting among the cost components identified above. In cases where a component involves incapacitation (as with drug-induced incarceration, specialty treatment, and hospitalization), society essentially pays twice: once to deal with the problem behavior of an individual and again because after the behavior has been dealt with, the individual becomes nonproductive.

(b) Incarceration and homicide components of Productivity included in Crime. As noted above, some elements of productivity costs may be viewed as crime costs. In column (b) lost productivity attributable to illicit-drug-induced incarceration and illicit-drug-induced homicide are treated as crime costs. This causes crime costs to increase from *$61,376,694* to *$113,277,616* and productivity costs to decrease from *$120,304,004* to *$68,403,082*. The total remains unchanged.

Comparison of Drug Costs to Other Societal Costs

The estimates presented above place illicit drug use on par with other serious chronic health problems in the United States. A recent study conducted by the National Institute of Diabetes and Digestive and Kidney Diseases (2008) estimated that diabetes costs the United States more than $174 billion each year. As was the case here, that study included both direct costs (medical care and services) and indirect costs (short-term and permanent disability as well as premature death). Finkelstein et al. (2009) report that medical costs associated with obesity totaled more than $147 billion in 2008. This is driven largely by the fact that obese Americans spend approximately 40 percent more on medical services (an average of $1,429 per year) than those whose weight is in the healthy range. The Centers for Disease Control and Prevention (CDC) report that between 1995 and 1999, smoking caused an estimated 440,000 premature deaths each year and was responsible for at least $157 billion annually in health-related economic costs (CDC, 2002). The approach taken by the CDC authors was similar to the approach taken here and was based upon estimates of annual smoking-attributable mortality, years of potential life lost, smoking-attributable medical expenditures for adults and infants, and lost productivity for adults. Heart disease exacts perhaps the highest toll. During 2010 alone, it cost the United States an estimated $316 billion. This includes the costs of health care services, medications, and lost productivity (CDC, 2010).

Policy Implications

Illicit drug use is not like other health problems in that its consequences may include criminal sanctions. Since it is well known that illicit drug use sometimes progresses from experimentation to recreational use and eventually to abuse or dependence, it is relatively easy to draw inferences from the findings presented above.

It is important that illicit drugs be made as difficult and costly to obtain as possible. This points to the value of law enforcement efforts. It is best if illicit drug use not be initiated at all. This points to the value of community-based prevention initiatives. If illicit drug use is initiated, then the earlier in the drug-use career that intervention takes place, the better society is served. This points to the value of screening and brief intervention activities. Later in the career, consequences involving specialty treatment, hospitalization, and incarceration are more likely to occur. These outcomes are expensive on two counts: once because society incurs costs by addressing the problem

and again because productivity is lost when incapacitation ensues. This points both to the value of providing effective and broadly available specialty treatment and to the value of diverting nonviolent drug users into alternative specialty treatment settings whenever possible.

The findings thus validate the basic premises of the National Drug Control Strategy. Strong law enforcement efforts that reduce cultivation, production, and distribution of illicit drugs both limit consumer access and enhance public safety. Prepared communities that support comprehensive local prevention initiatives reduce the probability that individuals will initiate illicit drug use. And a well-developed system of specialty treatment serves ultimately to break the cycle of drug use and criminality.

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U.S. Department of Justice
National Drug Intelligence Center

The Economic Impact of Illicit Drug Use on American Society

Product No. 2011-Q0317-002

Overview

This is the first comprehensive assessment of societal costs attributable to illicit drug use to be completed in more than a decade. As such, it builds upon original work completed by Harwood et al. (1984, 1998) and extended by the same author under the auspices of ONDCP (2001, 2004). We have attempted to maintain consistency with this research and therefore employ a COI methodology that focuses narrowly on the tangible impact of illicit drug use on American society.[1] This inquiry does not involve monetization of intangible losses associated with reduced quality of life and addresses only the consequences of illicit drug use as they relate to crime, health, and productivity.[2] Although many of the conventions used in the earlier studies are retained, the task is redefined when necessary in order to maintain conceptual integrity.

1. The COI approach is normally attributed to Rice (1967) and has been applied broadly in studies assessing the tangible consequences of medical disorders (for recent meta-analyses of published work, see Akobundu et al., 2006; Clabaugh and Ward, 2008). Guidelines for conducting COI research were provided initially by Hodgson and Meiners (1982) and involved conventions related to the measurement of direct costs, indirect (productivity) costs, and psychosocial costs. Those conventions are adopted here.

2. One of the major criticisms of the COI approach is that it fails to consider intangible costs related to pain and suffering (McCollister et al., 2010; Miller et al., 1996, 2006; Rajkumar and French, 1997). Over time, research on the consequences of illicit drug use has become increasingly inclusive, incorporating concepts related to jury compensation (Cohen et al., 1988; Miller et al., 1996, 2006), "willingness to pay" (Cohen et al., 2004), and Quality-Adjusted Life Years (QALYs)—for a relevant example, see Nicosia et al., 2009). The application of COI methodologies nonetheless remains common and allows comparison between the findings presented here and other medical disorders.

Prevalence and Incidence-Based Approaches

Estimates may be based on the prevalence of a disorder during a given period of time and on the costs associated with treating this disorder during the same period of time or on the incidence of a disorder during a given period of time and on the costs associated with treating this disorder over the entire course of its existence. These are defined respectively here as prevalence and incidence-based approaches.

Given these definitions, it is possible to argue that prior work in this area has employed a mixed model in which some costs have been measured in a manner consistent with a prevalence-based approach while other costs have been measured in a manner consistent with an incidence-based approach. Thus the burden that illicit drug use places on the criminal justice system has been assigned the value of current period costs, while illicit drug-induced premature mortality has been assigned the present discounted value of lifetime earnings. The combination of estimates so derived can produce a distorted picture of the relative magnitude of cost components, and that problem is avoided by adopting a more strictly prevalence-based approach.[3] This requires various methodological accommodations that are discussed in detail in subsequent sections of the report.

3. We believe that this allows a more accurate depiction of the contributions that individual cost components make to the overall cost of illicit drug use. But the refinement renders the estimates provided here and the estimates provided in earlier reports incomparable for lost productivity due to premature mortality and homicide. As an aid to comparison, we provide conventional estimates in these areas as supplemental appendices.

All costs reported in red italics are in thousands.

Current Scope of Research

The objective is to estimate societal costs attributable to illicit drug use and realized during calendar year (CY) 2007—the most recent year for which data are available. Our approach assumes that any number of possible states may be occupied by illicit drug-using individuals. They may be in a jail or prison, in a specialty treatment program or hospital, in the general population, or elsewhere. Presence in these states is episodic, and, at any given moment, the states may be regarded as mutually exclusive. In some cases, societal costs are attributable to an episode of limited duration that falls entirely within the 1-year observation period. An emergency room visit is an episode of this kind. But in many cases, an episode exceeds the limits of the observation period. A term in prison is an episode of this kind. When episodes exceed the limits of the observation period, it is necessary to make certain assumptions about the constancy of movement among states during the observation period. And so, in the analysis that follows, the system is assumed to be at equilibrium.

Within this context, methods are developed for identifying illicit drug-using individuals and determining whether their criminality, health problems, or reduced productivity is attributable to illicit drug use. When estimating criminal justice system costs, information provided by prisoners regarding the circumstances of their crime is examined in order to render an assessment of whether it was actually induced by illicit drug use. And then a generalization is made from this assessment to all crimes of a similar kind. Estimating the health and productivity costs attributable to illicit drug use requires that similar assessments be made regarding its causal role.[4]

The health estimates provided here are based only on costs that are reimbursed by public payers. We adopt this restrictive definition in an effort to assess the shared burden that illicit drug use places on all members of society and in so doing to make information of interest available to the primary consumers of the report. These estimates are not the sum of all drug-induced health costs. In this sense, the present research differs from prior work by Harwood et al. (1984, 1998) and ONDCP (2001, 2004).

It is important to note that this analysis occurs within the context of a "what if" scenario in which illicit drug use no longer exists. As such, it may again not be much different from earlier studies, save that this fact is stated explicitly and allowed to guide our estimation efforts more completely (Harwood et al., 1984, 1998; ONDCP, 2001, 2004). The result can be demonstrated by the manner in which productivity losses attributable to incarceration are estimated. It is usual practice to attribute mean market or household productivity values to individuals who are in jails and prisons to determine what they might otherwise have contributed to society had they been at liberty. But these mean values for productivity are based on a general population that includes illicit drug users. So in this analysis, a statistical basis for increasing the mean market productivity and household productivity values for members of the general population is developed before attributing these values to members of incarcerated populations.

As noted above, this is a rather tightly circumscribed exercise that deals only with the tangible consequences of illicit drug use as they relate to crime, health, and productivity. It does not attempt to estimate costs associated with the intangible consequences of illicit drug use, nor does it attempt to estimate costs in areas where consequences may be tangible but unmeasurable (the environmental impact of methamphetamine production), nor does it attempt to estimate once-removed or "second generation"

4. Harwood et al. (1999) provide commentary criticizing past efforts of this kind. They argue that estimates of the economic impact of illicit drug use rely excessively upon guesswork and untested assumptions. Our position is that despite their limitations, such estimates do allow the economic impact of illicit drug use to be assessed relative to other diseases and, assuming constant bias, changes in the magnitude of the problem to be monitored over time.

costs (foster care placement resulting from illicit drug use on the part of the parent or legal guardian). The scope of this inquiry is limited further to include only drugs scheduled by the Drug Enforcement Administration (DEA). This leads us to consider any use of Schedule I drugs (principally marijuana and heroin) and nonmedical use of Schedule II-IV drugs (cocaine and methamphetamine as well as prescription pain relievers, tranquilizers, stimulants and sedatives) in the analysis that follows.[5] In either case, such behavior is termed "illicit drug use." Applying the same convention, the use of alcohol or unregulated solvents (inhalants) as intoxicants is not considered. Wherever possible, the estimates are derived from publicly available data-collection systems that the United States government is likely to continue to support in future years. This increases the probability that successive rounds of estimation can be completed without incurring start-up costs or engaging in primary data-collection activities.

5. The terms *pain relievers*, *stimulants*, *tranquilizers*, and *sedatives* are defined operationally in a manner consistent with the National Survey on Drug Use and Health (NSDUH). Pain relievers include all narcotic analgesics: buprenorphine (Buprenex®); codeine (Tylenol with Codeine®); dextropropoxyphene (Darvocet®, Darvon®); hydrocodone (Hycomine®, Lorcet®, Lortab®, Lortab ASA®, Vicodin®, Vicoprofen®); hydromorphone (Dilaudid®, Palladone®); meperidine (Demerol®, Mepergan®); morphine (MS-Contin®, Oramorph SR®, MSIR®, Roxanol®, Kadian®, RMS®); methadone (Dolophine®); oxycodone (OxyContin®, OxyIR®, Percocet®, Percodan®, Tylex®); and pentazocine (Talacen®, Talwin®, Talwin Nx®). Tranquilizers include longer-acting benzodiazepines, chlordiazepoxide, and meprobromate: alprazolam (Xanax®), chlordiazepoxide (Librium®), clonazepam (Klonopin®), clorazepate (Tranxene®), diazepam (Valium®), halazepam (Paxipam®), lorzepam (Ativan®), oxazepam (Serax®), prazepam (Centrax®), quazepam (Doral®); chlordiazepoxide (Librium®, Limbitrol®); and meprobromate (Miltown®, Equanil®). Stimulants include all amphetamines, methylphenidate, and anorectics: amphetamine (Adderall®, Biphetamine®, Dexedrine®, Dextrostat®), methamphetamine (Desoxyn®); methylphenidate (Concerta®, Methylin®, Provigil®, Ritalin®); benzphetamine (Didrex®), diethylpropion (Tenuate®, Tepanil®), mazindol (Sanorex®, Mazanor®), phendimetrazine (Bontril®, Plegine®, Prelu-27®), and phentermine (Ionamin®, Lonamin®, Fastin®, Adipex®). Sedatives include all barbiturates, chloral hydrate, and shorter-acting benzodiazepines: amobarbital (Amytal®), aprobarbital (Alurate®), butabarbital (Butisol®,Tuinal®), butalbital (Fiorinal®), mephobarbital (Mebaral®), methohexital (Brevital®), pentobarbital (Nembutal®), phenobarbital (Luminal®), secobarbital (Seconal®), talbutal (Lotusate®), thiamyl (Surital®), thiopental (Pentothal®); chloral hydrate (Aquachloral®, Noctec®); estazolam (ProSom®), flurazepam (Dalmane®), temazepam (Restoril®), triazolam (Halcion®); zolpidem (Ambien®), and zaleplon (Sonata®).

Summary of Findings

The Statistical Summary provided in this report draws together findings in the three key areas: crime, health, and productivity. Cost components of each area appear on the row axis of the table, and two alternative scenarios for allocating costs to crime, health, and productivity appear on the column axis of the table. The scenarios are identified there as (a) and (b) and discussed in detail below. Unless otherwise noted, all societal costs are reported in thousands and appear in red italics.

(a) Incarceration and homicide components of Productivity not included in Crime. This may be considered the "base model" in the analysis. Since some productivity is lost to crime (as when incarceration or homicide ensues), these elements may be treated as either crime costs or productivity costs. The numbers in this column parse the estimates so that all lost productivity is treated as a productivity cost. Thus:

- Crime includes three components: criminal justice system costs (*$56,373,254*), crime victim costs (*$1,455,555*), and other crime costs (*$3,547,885*). These subtotal *$61,376,694*.
- Health includes five components: specialty treatment costs (*$3,723,338*), hospital and emergency department costs for nonhomicide cases (*$5,684,248*), hospital and emergency department costs for homicide cases (*$12,938*), insurance administration costs (*$544*), and other health costs (*$1,995,164*). These subtotal *$11,416,232*.
- Productivity includes seven components: labor participation costs (*$49,237,777*), specialty treatment costs for services provided at the state level (*$2,828,207*), specialty treatment costs for services provided at the federal level

(*$44,830*), hospitalization costs (*$287,260*), incarceration costs (*$48,121,949*), premature mortality costs (nonhomicide: *$16,005,008*), and premature mortality costs (homicide: *$3,778,973*). These subtotal *$120,304,004*.

Taken together, these costs total *$193,096,930*, with the majority share attributable to lost productivity. The findings are consistent with prior work that has been done in this area using a generally comparable methodology (Harwood et al., 1984, 1998; ONDCP, 2001, 2004). It is important to note that there is no double-counting among the cost components identified above. In cases where a component involves incapacitation (as with drug-induced incarceration, specialty treatment, and hospitalization), society essentially pays twice: once to deal with the problem behavior of an individual and again because after the behavior has been dealt with, the individual becomes nonproductive.

(b) Incarceration and homicide components of Productivity included in Crime. As noted above, some elements of productivity costs may be viewed as crime costs. In column (b), lost productivity attributable to illicit drug-induced incarceration and illicit drug-induced homicide are treated as crime costs. This causes crime costs to increase from *$61,376,694* to *$113,277,616* and productivity costs to decrease from *$120,304,004* to *$68,403,082*. The total remains unchanged.

The estimates presented above place illicit drug use on par with other serious health problems in the United States. A recent study conducted by the National Institute of Diabetes and Digestive and Kidney Diseases (2008) estimated that diabetes costs the United States more than $174 billion each year. As was the case here, that study included both direct costs (medical care and services) and indirect costs (short-term and permanent disability as well as premature death). Finkelstein et al. (2009) report that medical costs associated with obesity totaled more than $147 billion in 2008. This is driven largely by the fact that obese Americans spend approximately 40 percent more on medical services (an average of $1,429 per year) than those whose weight is in the healthy range. The CDC reported that between 1995 and 1999, smoking caused an estimated 440,000 premature deaths each year and was responsible for at least $157 billion annually in health-related economic costs (CDC, 2002). The approach taken by the CDC authors was also similar to the approach taken here and was based upon estimates of annual smoking-attributable mortality, years of potential life lost, smoking-attributable medical expenditures for adults and infants, and lost productivity for adults. Heart disease exacts perhaps the highest toll. During 2010 alone, it cost the United States an estimated $316 billion. This includes the costs of health care services, medications, and lost productivity (CDC, 2010).

All costs reported in red italics are in thousands.

Statistical Summary

Crime	(a)	(b)
Criminal Justice System		*$56,373,254*	*$56,373,254*
Crime Victim		*$1,455,555*	*$1,455,555*
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Property	*$1,320,691*		
Other		*$3,547,885*	*$3,547,885*
Productivity		*$0*	*$51,900,922*
Subtotal		*$61,376,694*	*$113,277,616*

Health	(a)	(b)
Specialty Treatment		*$3,723,338*	*$3,723,338*
State	*$3,368,564*		
Federal	*$354,774*		
Hospital and Emergency Department			
Non-homicide		*$5,684,248*	*$5,684,248*
Hospital	*$5,523,189*		
Emergency Department	*$161,059*		
Homicide		*$12,938*	*$12,938*
Hospital	*$12,700*		
Emergency Department	*$238*		
Insurance Administration	*$544*	*$544*	*$544*
Other		*$1,995,164*	*$1,995,164*
Federal Prevention	*$803,761*		
Federal Research	*$569,340*		
AIDS	*$622,063*		
Subtotal		*$11,416,232*	*$11,416,232*

Productivity	(a)	(b)
Labor Participation		*$49,237,777*	*$49,237,777*
Males	*$34,998,122*		
Females	*$14,239,655*		
Specialty Treatment (State)		*$2,828,207*	*$2,828,207*
Males	*$1,981,428*		
Females	*$846,779*		
Specialty Treatment (Federal)		*$44,830*	*$44,830*
Males	*$43,252*		
Females	*$1,578*		
Hospitalization		*$287,260*	*$287,260*
Males	*$178,016*		
Females	*$109,244*		
Incarceration		*$48,121,949*	*$0*
Males	*$44,048,432*		
Females	*$4,073,517*		
Premature Mortality (Non-Homicide)		*$16,005,008*	*$16,005,008*
Males	*$11,710,119*		
Females	*$4,294,889*		
Premature Mortality (Homicide)		*$3,778,973*	*$0*
Males	*$3,089,080*		
Females	*$689,893*		
Subtotal		*$120,304,004*	*$68,403,082*

Total	*$193,096,930*	*$193,096,930*

(a) Incarceration and homicide components of Productivity not included in Crime

(b) Incarceration and homicide components of Productivity included in Crime

All costs reported in red italics are in thousands.

Organization of the Report

Three chapters follow that describe the estimation procedure in detail:

Chapter 1 examines crime-related costs attributable to illicit drug use in the United States. Within this context, criminal justice system costs, crime victim costs, and other costs are discussed.

Chapter 2 examines health-related costs attributable to illicit drug use in the United States. Within this context, treatment for illicit drug use delivered in specialty settings (detoxification, residential, outpatient, and outpatient methadone programs), treatment for illicit drug use—as well as illicit drug-induced disorders—delivered in hospitals and emergency departments, treatment for illicit drug-induced homicides delivered in hospitals and emergency departments, and insurance administration are discussed. The federal cost of funding state and local prevention initiatives, the federal cost of funding for treatment and prevention research, and the cost of living with illicit drug-induced AIDS are also assessed here.

Chapter 3 examines productivity-related costs attributable to illicit drug use in the United States. This involves measurement of various states of temporary incapacitation (in jails and prisons, residential drug treatment programs, and hospitals) as well as premature mortality attributable to illicit drug use (on the part of the deceased and on the part of the perpetrator in the case of illicit-drug-induced homicide).

Chapter 1. The Impact of Illicit Drug Use on Crime

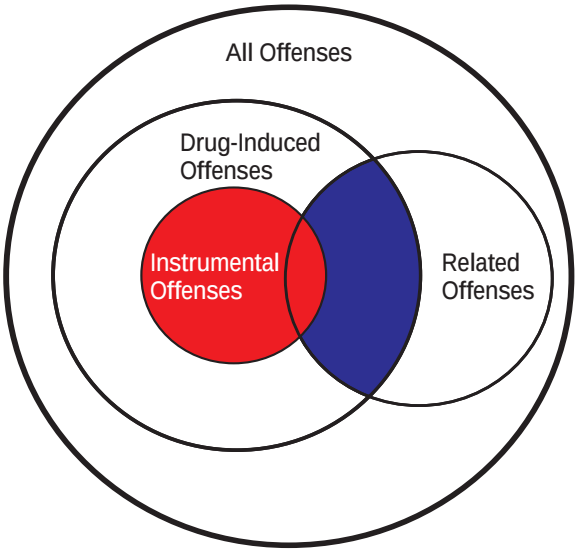
In this section we attempt to assess the impact of illicit drug use on crime in the United States. Our conceptual model includes three primary components: criminal justice system costs, victim costs, and other costs. Because so much depends on the assumptions that we make regarding the relationship between illicit drug use and crime, we begin with a discussion of attribution.

Attribution of Causality

Our interest in assessing the crime costs associated with illicit drug use derives from an assumption that illicit drug use in some way causes crime to occur. There is no doubt that this is true in some cases. If a person engages in larceny specifically to support a heroin habit, then we can argue that had there been no heroin use the larceny would never have occurred. *Instrumental offenses* of this kind are inherently drug-induced. But if a person commits homicide out of anger and while under the influence of cocaine, then the situation is less clear. Given sufficient enmity and the proper circumstances, the crime might have occurred in any case. Or, perhaps the cocaine produced disinhibiting effects that led ultimately to murder. *Related offenses* of this kind may be drug-induced, but this is not necessarily true. In the work on offense attribution that follows, we attempt to differentiate between instrumental offenses that are inherently drug-induced and related offenses that may or may not be drug-induced.[6]

6. The relationship between illicit drug use and criminal behavior is well documented in the literature (Ball et al., 1981; Chaiken and Chaiken, 1990; French et al., 2000). The distinction that we make here between instrumental offenses and related offenses is consistent with the tripartite framework set forth by Goldstein (1985) in which instrumentality and impulsivity are treated as causal and where (as a third component) both illicit drug use and crime are viewed as correlated indicators of some underlying phenomenon (perhaps poverty). This latter form of "systemic" crime is important to us, and the SILJ, SISCF, and SIFCF all include questions related to gang membership as well as participation in drug distribution activities. Unfortunately there are few responses to these items, and we are left with no empirical basis upon which to make attribution in this area. As such, our estimates should be regarded as conservative.

Figure 1.1. Method for Attribution



Our general scheme is depicted in Figure 1.1. As shown there, all instrumental offenses are drug-induced offenses; instrumental offenses and related offenses are correlated; and some related offenses are drug-induced offenses. Offense attribution makes use of information from three surveys supported by the Bureau of Justice Statistics (BJS): the Survey of Inmates in Local Jails (SILJ), last conducted in 2002 (BJS, 2006); the Survey of Inmates in State Correctional Facilities (SISCF), last conducted in 2004 (BJS, 2007); and the Survey of Inmates in Federal Correctional Facilities (SIFCF), also last conducted in 2004 (BJS, 2007). All three surveys have similar questions and skip patterns.

Respondents are asked a series of screening questions regarding any prior use of a number of illicit drugs. Summing over all individuals with complete response sets for the screening questions ((1 2) = 1, else = 0) forms a denominator that is used in the calculation of two attribution factors as described below. An affirmative response to any of the screening questions leads two additional questions to be asked: "Did you commit the (governing offense) in order to get money to buy drugs?" and

"Were you under the influence of drugs when you committed the (governing offense)?" For individuals with complete response sets on the screener, the sum over all (yes =1, else =0) responses to the first question (the red area in Figure 1.1), divided by the denominator as defined above ("All Offenses" in Figure 1.1), provides an attribution factor for instrumental offenses for each Uniform Crime Report (UCR) offense category. The sum over all cases where the response to the first question = 0 and the response to the identically coded second question =1, divided by the denominator as defined above, provides an attribution factor for related offenses for each UCR offense category. This essentially assigns the commonality between the two questions to the first question, which allows causality to be assigned with certainty.

We are then left with the task of discounting some portion of the attribution factor for related offenses to reflect the fact that not all related offenses are drug-induced (leaving the blue area in Figure 1.1). There appear to be no research-based findings that might justify our selection of a probability here, and so we choose to err conservatively by assuming that the proportion of related offenses that are drug induced is 0.10. This is an area where additional research effort is warranted. We make exception to this procedure in the case of offenses involving drug possession and sales. Here it is unnecessary to attempt to draw inference regarding causality since we can assume that drug offenses are drug-induced by definition. There is no discount applied to related offenses of this kind, and the attribution factor is fixed at 1.00.[7]

Using this approach, we construct attribution factors for instrumental offenses and related offenses for each UCR offense category. This task is performed separately for each of the populations represented by the various survey samples (local jails for the SILJ, state prisons for the SISCF, and federal prisons for the SIFCF). In the case of the jail population, we construct attribution factors for instrumental offenses and related offenses only for individuals who have been sentenced, and differentiate between those who have been sentenced to a term in jail and those who have been sentenced and are awaiting transfer to another correctional facility. Probation and parole attribution factors are inferred based upon the distributions of offenses reported by BJS (2009b). Our findings for these groups are presented in detail in Appendix A. In summary:

- The overall attribution rate that we estimate, based upon incarcerated populations, is approximately 0.36. Harwood et al. (1998) and ONDCP (2001, 2004) make use of a somewhat lower attribution rate (approximately 0.34). The discrepancy may be due to procedural differences.
- Drug offenses per se contribute heavily to this attribution rate; in the absence of possession and sales offenses, the overall attribution rate would be on the order of 0.18.
- Instrumental offenses are more highly represented among property offenses than among violent offenses, and related offenses are more highly represented among violent offenses than among property offenses.

A summary of our findings is presented in Table 1.1 where "Adjusted Attribution" indicates only that the procedures described above have been applied to the data. The attribution rate varies significantly across correctional populations, ranging from a high of 0.60 for federal prisoners to a low of 0.31 for prisoners housed in local jails. The relatively high rates for probation and parole populations are indicative of the manner in which drug possession and sales cases are processed both before and after sentencing. Row proportions in Table 1.1 may not sum properly due to rounding.

7. We do nonetheless provide separate estimates for instrumental offenses and related offenses.

Table 1.1. Offense Attribution Factors

Incarcerated Populations									
	Instrumental Offenses				Related Offenses				Drug-Induced
	yes	no	total	prop.	yes	no	total	prop.	prop.
Sentenced to Jail									
Number	26,529	190,506	217,035	**0.12**	34,670	182,253	216,922	**0.16**	**0.28**
Adjusted Attribution				**0.12**				**0.19**	**0.31**
Source: SILJ, 2002 (BJS, 2006)									
Sentenced Awaiting Transfer									
Number	9,440	34,733	44,173	**0.21**	9,424	34,749	44,173	**0.21**	**0.43**
Adjusted Attribution				**0.21**				**0.20**	**0.42**
Source: SILJ, 2002 (BJS, 2006)									
All Jail Cases									
Number	35,969	225,239	261,208	**0.14**	44,093	217,002	261,095	**0.17**	**0.31**
Adjusted Attribution				**0.14**				**0.19**	**0.33**
Source: SILJ, 2002 (BJS, 2006)									
State Prison									
Number	201,662	993,786	1,195,448	**0.17**	232,270	963,162	1,195,432	**0.19**	**0.36**
Adjusted Attribution				**0.17**				**0.17**	**0.34**
Source: SISCF, 2004 (BJS, 2007)									
Federal Prison									
Number	23,333	102,008	125,340	**0.19**	17,209	108,074	125,283	**0.14**	**0.32**
Adjusted Attribution				**0.19**				**0.42**	**0.60**
Source: SIFCF, 2004 (BJS, 2007)									
Probation and Parole Populations									
State									
Probation	Individual-level data are not available for these populations								**0.39**
Parole									**0.49**
Source: Probation and Parole in the United States, 2007 (BJS, 2009b); SISCF, 2004 (BJS, 2007)									
Federal									
Probation	Individual-level data are not available for these populations								**0.35**
Parole									**0.45**
Source: Probation and Parole in the United States, 2007 (BJS, 2009b); SIFCF, 2004 (BJS, 2007)									

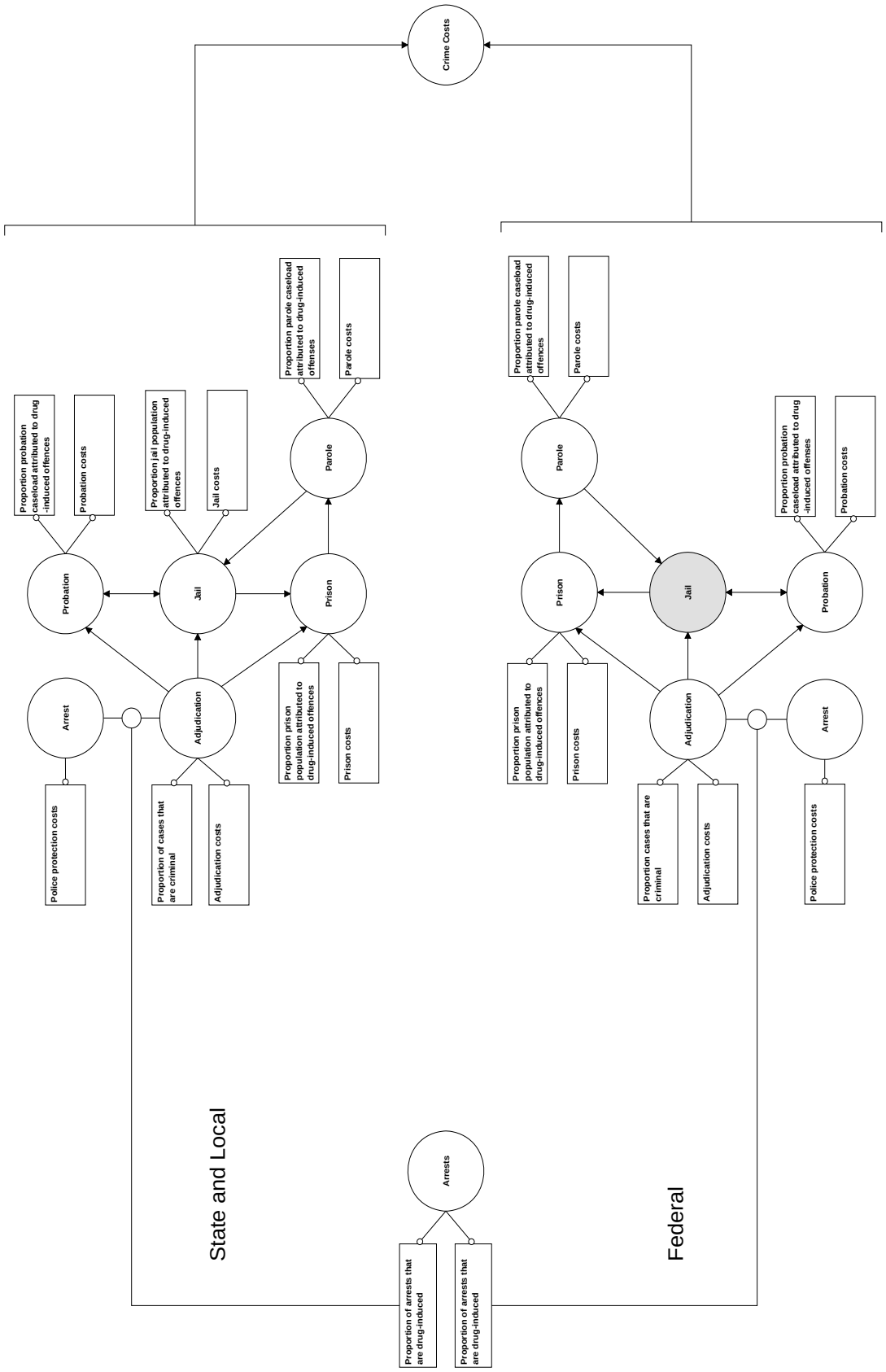
Criminal Justice System

Our component-based model of criminal justice system costs is depicted in Figure 1.2. Costs associated with victimization and other are treated separately and do not appear there. The diagram differentiates generally between state and local and federal criminal justice systems and establishes measures related to the impact of illicit drug use on police protection, adjudication, and correctional activities. Attribution factors associated with each UCR offense are used to burden the system accordingly.

The model requires that we differentiate between criminal and civil cases in order to properly assign adjudication costs associated with illicit drug use. While the Administrative Office of the United States Courts (AOUSC: 2009) makes information available on the proportion of federal cases that are criminal rather than civil, there are no data of this kind readily available at the state and local level. We therefore canvassed states and were able to solicit responses from an ad hoc sample of nine respondents. Our findings are presented in Table 1.2.

All costs reported in red italics are in thousands.

Figure 1.2. Criminal Justice System Cost Components



All costs reported in red italics are in thousands.

Table 1.2. Proportion of Criminal v Civil Cases

System	Criminal	Civil	Total	prop.
Arizona	471,960	324,458	796,418	0.59
California	1,089,957	1,286,517	2,376,474	0.46
Kentucky	249,225	157,954	407,179	0.61
New York	1,726,148	1,814,190	3,540,338	0.49
North Carolina	146,437	26,799	173,236	0.85
Pennsylvania	512,517	216,447	728,964	0.70
South Dakota	169,057	82,830	251,887	0.67
Texas	937,716	722,733	1,660,449	0.56
Utah	129,539	85,892	215,431	0.60
Total	5,432,556	4,717,820	10,150,376	
Mean				0.54
Federal	68,413	257,507	325,920	0.21

Source: AOUSC (2009); primary data collection as described above

The weighted mean proportion of cases that were processed in 2007 as criminal rather than civil for this group of states is 0.54. The corresponding number for the federal system is 0.21.

State and Local Criminal Justice

Attribution factors for state and local components are derived from an analysis of data on local jail and state prison, parole, and probation populations.

- The estimation of police protection costs makes use of attribution factors for local jail and state prison populations weighted to reflect the relative sizes of their populations. These attribution factors are applied to the distribution of UCR offenses reported to the Federal Bureau of Investigation (FBI) for 2007 (FBI, 2008). The resulting proportion of arrests attributable to illicit drug use is multiplied by state and local police protection expenditures reported by BJS for 2007 (BJS, 2010b) to produce an estimate of costs related to illicit drug use.
- The estimation of adjudication costs makes use of a similar procedure, although here we deal not only with attribution factors for local jail and state prison populations weighted to reflect the relative sizes of their populations but also with the proportion of cases processed at the state and local level that are criminal rather than civil (from Table 1.2).
- The estimation of corrections costs makes use of attribution factors for local jail and state prison, parole, and probation populations. The attribution factor for each population is multiplied by its midyear census for 2007 (BJS, 2008b, 2008c, 2009b), allowing us to calculate the proportion of each population with offenses related to illicit drug use. Information on corrections costs for 2007 is disaggregated for local jail and state prison, parole, and probation populations using supplemental data provided by the Pew Center on the States (2009). The proportion of each population attributable to illicit drug use is multiplied by its estimated expenditures for 2007 to produce a corresponding estimate of costs related to illicit drug use.

Federal Criminal Justice

In a similar way, attribution factors for the federal components are derived from the analysis of data on federal prison, parole, and probation populations.

- The estimation of police protection costs makes use of an attribution factor for the federal prison population. This attribution factor is applied to the distribution of bookings made by United States Marshals for 2007 (BJS, 2010a). The resulting proportion of arrests attributable to illicit drug use is multiplied by federal police protection expenditures reported by BJS for 2007 (BJS, 2010b) to produce an estimate of costs related to illicit drug use.
- The estimation of adjudication costs makes use of a similar procedure, although here we deal not only with an attribution factor for the federal prison population but also with the proportion of cases processed at the federal level that is criminal rather than civil (from Table 1.2).
- The estimation of corrections costs makes use of attribution factors for federal prison, parole, and probation populations. As before, the attribution factor for each population is multiplied by its midyear census for 2007 (BJS, 2008c, 2009b), allowing us to calculate the proportion of each population with offenses related to illicit drug use. Information on corrections costs for 2007 is disaggregated for federal prison, parole, and probation populations using supplemental data provided by the Federal Bureau of Prisons (BOP: Federal Register, 2009). The proportion of each population attributable to illicit drug use is multiplied by its estimated expenditures for 2007 to produce a corresponding estimate of costs related to illicit drug use.

Our estimates are presented in Figure 1.3. The cost associated with any given component is given by multiplying through the elements in the corresponding row. These elements of cost are of two kinds: those relating to proportions and those relating to costs. The former include estimates of the probability that crime is attributable to illicit drug use and estimates of the proportions of court cases that are criminal rather than civil. The latter include police protection, adjudication, and corrections costs. Using this approach, we estimate criminal justice system costs of *$56,373,254* attributable to illicit drug use.[8]

Crime Victims

We build upon studies of victim costs that make use of the COI approach (Harwood et al., 1984, 1998; ONDCP, 2001, 2004). The basic components of such estimates include what are commonly referred to as "tangible" losses attributable to medical expenses, property losses, and lost productivity. As a practical matter, medical expenses occur only in conjunction with violent offenses.

Within this context, theft per se is treated as a transfer of wealth since, while it results in a cost to the victim, it does not result in a cost to society. This is not true, however, when property is damaged or destroyed (in which case theft does result in a loss to society). Cash losses on the part of the victim may be regarded in a similar manner. Some have argued that "society disagrees" with this reasoning, and there is a continuing discussion on the matter (Miller et al., 1996).

Victimization often results in some loss of productivity (particularly when a violent crime is involved), which can be estimated using data on lost wages for individuals who are workforce participants. Measures are sometimes taken to estimate both lost market productivity and lost household productivity by modeling the ratio of work days lost

8. Corrections costs for state and local prison, parole, and probation are calculated using per diem rates provided by the Pew Center on the States (2009) and midyear census counts provided by BJS (2008b, 2008c, 2009b). Total state and local correctional expenditures are set equal to the number provided by BJS (2010b), and this allows a per diem rate to be imputed for jails. The Adjustment for Federal is the discrepancy between corrections costs reported by BJS (2010b) and the product of federal per diem rates reported by BOP (Federal Register, 2009) and BJS midyear census counts (BJS, 2008c, 2009b). This may be due to undercounting of prisoners held in other statuses.

Figure 1.3. Criminal Justice System Cost Component Summary

		Police Protection			Adjudication			Corrections										
		Proportion of arrests that are drug-related		*Police protection costs*	*Proportion state and local cases that are criminal*		*Adjudication costs*	*Proportion jail costs attributable to drug-related offenses*	*Jail costs*	*Proportion prison costs attributable to drug-related offenses*	*Prison costs*	*Proportion parole costs attributable to drug-related offenses*	*Parole costs*	*Proportion probation costs attributable to drug-related offenses*	*Probation costs*	*Drug-induced costs*
State and Local	Arrests	0.24	X	$80,311,670												= *$19,499,701*
	Adjudication	0.24	X		(0.54	X	$37,819,605)									= *$4,914,602*
	Jail							0.33	X $19,321,697							= *$6,401,922*
	Prison									0.34	X $38,087,992					= *$12,922,781*
	Parole											0.49	X $1,968,986			= *$961,567*
	Probation													0.39	X $5,280,689	= *$2,076,922*
Federal	Arrests	0.27	X	$19,617,000												= *$5,250,996*
	Adjudication	0.27	X		(0.21	X	$10,954,000)									= *$615,474*
	Prison									0.60	X $5,831,670					= *$3,515,598*
	Parole											0.45	X $393,192			= *$177,414*
	Probation													0.35	X $103,138	= *$36,278*
															Total	*$56,373,254*

State and Local				
	Jail	**Prison**	**Parole**	**Probation**
Corrections Total	**$19,321,697**	**$38,087,992**	**$1,968,986**	**$5,280,689**
Per Diem	$67.82	$78.95	$7.47	$3.42
Population	780,581	1,321,731	722,153	4,230,305
Product	$19,321,697	$38,087,992	$1,968,986	$5,280,689
Adjustment	1.00	1.00	1.00	1.00

Federal			
	Prison	**Parole**	**Probation**
Corrections Total	**$5,831,670**	**$393,192**	**$103,138**
Per Diem	$68.28	$9.92	$9.92
Population	196,804	91,333	23,958
Product	$4,904,789	$330,699	$86,745
Adjustment	1.19	1.19	1.19

Note:

Cost information is derived from a report that BJS produces each year on police protection, adjudication, and corrections expenditures (BJS, 2010b). In preparing this report it draws upon data compiled by the United States Census Bureau (USCB). Unlike state and local government expenditures, which the USCB collects through its own surveys, federal expenditures are obtained from the Budget of the United States as prepared by the Office of Management and Budget (OMB). The USCB thus follows OMB conventions for the most part when classifying federal expenditures.

Within this context the activities of the Drug Enforcement Administration (DEA) are classified in their entirety as performing a police protection function, as are the activities of Immigration and Customs Enforcement (ICE). Most of the activities of Customs and Border Protection (CBP), including those of the Office of Field Operations (CBP-OFO), Border Patrol (CBP-BP), and Air & Marine (CBP-A&M) are classified as performing a police protection function as well. The only exceptions are activities associated with operation Puerto Rico and a few miscellaneous agricultural programs. The activities of the Transportation Security Administration (TSA) are not classified as performing a police protection function.

The USCB coding procedure treats interdiction as police protection. This is true regardless of whether the interdiction activities occur in the United States or in another country. But if the interdiction activities are performed as part of another function, and serve only a minor role, then they are generally coded in a manner consistent with the dominant function.

Attribution factors are rounded to the nearest hundredth for illustration purposes.

All costs reported in red italics are in thousands.

per criminal incident to "home days" lost per criminal incident (Miller, 1993; Miller et al., 1996, 2006). This requires using data that are ancillary to the National Criminal Victimization Survey (NCVS: BJS, 2008a), which often provides the basis for estimates of lost productivity.

One aspect of these procedures involves inclusion of homicide risk as a component of victim costs (Harwood et al., 1984, 1998; McCollister et al., 2010; Miller et al., 1996, 2006; ONDCP, 2001, 2004). This is important because self-report data such as the NCVS by definition exclude homicide cases. Only the living can be interviewed; this leaves the UCR as the principal source of information on deaths. But the UCR sometimes records the crime leading to a homicide rather than the homicide itself in its statistics (Rajkumar and French, 1997). Thus NCVS-based productivity losses are commonly burdened by the probability that a nonfatal crime of a particular kind leads to homicide, times the present discounted value of lifetime earnings for the victim.

The COI approach has a number of limitations that have been discussed at length. Rajkimar and French (1997) have noted that some people may not actually be able to provide accurate self-reports of their medical expenses. And so reliance upon the NCVS for this purpose may result in underestimation. In response, some have drawn upon alternate data sources when developing estimates of medical expenses (Miller et al., 1996). The survey does not gather information on costs associated with mental health care, and, again, a variety of means have been employed to supplement the NCVS (Miller et al., 1996, 2006). But many have argued that the most significant shortcoming associated with the COI approach is that it fails to consider the "intangible" costs of pain, suffering, and reduced quality of life associated with criminal victimization.

As McCollister et al. (2010), Miller et al. (1996, 2006), and Rajkumar and French (1997) have noted, there are a number of other approaches that make use of more inclusive definitions of victim costs. These usually involve "jury compensation"—which assigns monetary value to intangibles based upon actual jury awards (Cohen et al., 1988; Miller et al., 1996, 2006) or "willingness to pay"—which assigns monetary value to intangibles based upon how much people are willing to pay in order to avoid having a particular kind of crime occur (Cohen et al., 2004).

In an effort to maintain consistency with earlier work completed by ONDCP (2001, 2004), we adopt a COI methodology. But because of our approach to the problem of estimating societal costs, we inherit only some of its shortcomings:

- Because we proceed from a prevalence-based perspective rather than from an incidence-based perspective, we must estimate current period productivity losses rather than the present discounted value of lifetime earnings. This makes recent estimates of tangible losses unusable for our purposes (McCollister et al., 2010). But it has the beneficial consequence of mitigating concerns related to the long-term health and mental health consequences of victimization.
- Because the prevalence of drug-induced homicide is estimated using National Center for Health Statistics (NCHS) Multiple Cause of Death Public Use Data (MCODPUD) rather than UCR crime data, the necessity of adjusting the NCVS data for homicide risk disappears.

Viewed through this lens, the components of victim costs are just medical expenses, damaged property losses, and current period productivity losses. Component estimates for medical expenses and damaged property losses are based upon NCVS data alone (BJS, 2009a), while estimates for *nonhomicide-related productivity* losses are made using both NCVS and American Time Use Survey

(ATUS) data.[9] The latter are derived from a representative sample of the noninstitutionalized population of the United States and gathered annually by the Bureau of Labor Statistics (BLS). Respondents are asked to keep logs recording their activities during a given 24-hour period. These data can be used to produce estimates of Market Productivity Value (MPV) and Household Productivity Value (HPV) for males and females by age. Such estimates have been provided for CY2007 by Grosse et al., 2009. Thus:

- Medical expenses are given by NCVS data on "total medical expenses" associated with the victimization event (these must involve a public payer).
- Damaged property losses are given by NCVS data as well. Here we estimate the proportion reduction in property value associated with cases in which all theft items have been recovered and multiply this times the total value of stolen property (thereby assuming that unrecovered property is damaged at the same rate as recovered property).
- Productivity losses are given by multiplying the mean number of days lost per incident times the mean daily MPV or HPV for a given sex by age category as reported by Grosse et al. (2009).[10]

Estimates are provided separately for violent crimes and property crimes. The NCVS gathers information only on the number of work days lost to a criminal incident. And so the corresponding number of home days lost to the incident is inferred using sex by age category ratios also estimated by Gross et al. (2009).

Annualized work and home day losses are then given by multiplying the number of victims in a given category by the corresponding values for mean work days and mean home days.

Crime victim costs are summarized in Figure 1.4. The public share of medical costs associated with victimization averaged $40.21 per event for violent crimes and $0.00 per event for property crimes. When medical costs are multiplied by the corresponding number of victimization events of each kind, the costs subtotal *$216,522* and *$0.00*.

The mean dollar amounts for stolen property prior to discount are $124.57 for violent crimes and $801.66 for property crimes. Recovered property is damaged at a mean rate of 0.11 for violent crimes and 0.26 for property crimes. Damage costs thus averaged $13.59 per event for violent crimes and $205.14 per event for property crimes. When the number of victimization events of each kind is multiplied times the mean value of damage costs, the products subtotal *$73,204* and *$3,683,547*. Drawing now from Tables 1.3 and 1.4—MPV and HPV costs totaled *$660,419* and *$173,721* for violent crimes and *$408,224* and *$168,521* for property crimes. Total Productivity Value (TPV) costs (the sum of MPV and HPV costs) associated with violent and personal crimes subtotaled *$834,140* and *$576,746*, respectively. Because only some victimization events are caused by illicit drug use, we apply the attribution factors defined earlier in this chapter for violent offenses (0.12) and property offenses (0.31) to the sum of medical costs, property costs, and productivity costs resulting in costs of *$134,864* and *$1,320,691* attributable to drug-induced violent crimes and drug-induced property crimes. These costs sum to *$1,455,555*.

9. Estimates for homicide-related productivity losses are provided in Chapter 3.

10. Grosse et al. (2009) include the value of noncash fringe benefits and employer payroll taxes. MPV and HPV reported in Tables 1.3 and 1.4 are adjusted to compensate for the fact that the ATUS sample includes illicit drug users whose productivity is reduced relative to nonusers. This procedure is described in detail in Chapter 3. Estimation of lost productivity due to homicide is also discussed there within the context of premature mortality.

All costs reported in red italics are in thousands.

Figure 1.4. Crime Victim Cost Component Summary

		Crime Type		
		Violent	Property	Total
Number of Events		5,385,240	17,955,838	23,341,078
Medical Costs Per Event		$40.21	$0.00	
Subtotal		*$216,522*	*$0.00*	*$216,522*
Property Costs Per Event		$124.57	$801.66	
Damage Rate		0.11	0.26	
Loss per Event		$13.59	$205.14	
Subtotal		*$73,204*	*$3,683,547*	*$3,756,751*
Productivity Costs				
Males	MPV	*$550,390*	*$298,980*	*$849,370*
	HPV	*$60,848*	*$71,051*	*$131,899*
Females	MPV	*$110,029*	*$109,245*	*$219,274*
	HPV	*$112,873*	*$97,470*	
Sum (Males+Females)	MPV	*$660,419*	*$408,224*	*$1,068,643*
Sum (Males+Females)	HPV	*$173,721*	*$168,521*	*$342,242*
Subtotal	TPV	*$834,140*	*$576,746*	*$1,410,886*
Total		*$1,123,866*	*$4,260,292*	*$5,384,159*
Attribution		0.12	0.31	
Total Loss with Attribution		*$134,864*	*$1,320,691*	*$1,455,555*

Other

The ONDCP fiscal year (FY) 2009 Budget Summary (ONDCP, 2008) provides final drug spending estimates for FY2007 (versus those enacted for 2008 and proposed for 2009). The methodology used in preparing the report has remained unchanged since 2004.[11] It identifies five "Other" areas. These include spending by the Department of Defense (DoD), the Department of State (DOS), and the Coast Guard (USCG), spending on the High Intensity Drug Trafficking Area (HIDTA) program, and spending by ONDCP.

Funds for DoD are appropriated generally to the Counternarcotics Central Transfer Account (CCTA). Some funds were also appropriated in FY2007 to a supplemental account that Congress provided and which was related to the war in Iraq. The total amount of DoD spending in FY2007 was *$1,188,325*. This includes funding for the United States National Guard (USNG). Appropriations in this area are used to pay for intelligence, interdiction, source nation, state and local assistance, and research and development activities.

The DOS receives appropriations for counternarcotics activities as well, and there are two entities that account for spending in this area: the Bureau of International Narcotics

11. The agency may revise its time series in 2011 per congressional instruction, but the numbers provided in the report are official as of this date.

All costs reported in red italics are in thousands.

and Law Enforcement Affairs (INL) and the United States Agency for International Development (USAID). The latter is responsible for the majority share. The DOS funds for the most part support source country activities—although a small portion is scored by ONDCP as interdiction. Total spending for DOS in FY2007 was *$1,010,581*.

The USCG is now part of the Department of Homeland Security (DHS) rather than the Department of Transportation (DOT). It is counted as a separate and distinct program within DHS. This allows us to identify its counternarcotics spending relatively easily. A total of *$1,080,916* was reported for FY2007, largely for interdiction (a small amount was also scored by ONDCP as research and development).

Some funding for HIDTAs is captured in the BJS expenditure data (BJS, 2010b). If law enforcement personnel are assigned to a HIDTA by a parent agency (such as the DEA or the FBI), then their salaries are covered by the parent agency. But ONDCP also receives an appropriation to provide assistance to federal, state, and local agencies within each HIDTA to carry out activities that address the specific threats within a particular region. Expenditures associated with such assistance are in addition to those associated with detailed staff. They are scored variously by ONDCP as intelligence, interdiction, investigations, research and development, and prosecution. A total of *$218,430* was attributed to HIDTA spending in FY2007.

Spending by the Executive Office of the President (EOP) is not captured by BJS (2010b) or other data sources. Therefore, we include funding for the ONDCP Counternarcotics Technology Assessment Center (CTAC) (*$20,000*), Special Funds (*$13,761*), and ONDCP operations as reflected in its own Salaries and Expenses (S&E) account (*$15,872*).

The Other expenditures total approximately *$3,547,885*.

All costs reported in red italics are in thousands.

Table 1.3. Victimization Costs for Lost Productivity: Violent Crimes

		Incident Consequences: Violent Crimes						Adjusted Productivity			Lost Productivity		
		(N)	Lost Work (Mean Days)	Ratio (Home/Work)	Lost Home (Mean Days)	Annualized Product (Work)	(Home)	MPV (Annual)	HPV (Annual)	TPV (Annual)	MPV (Total)	HPV (Total)	TPV (Total)
Males													
15–19		72,642	1.84	0.73	1.34	367	267	$6,333	$4,659	$10,992	*$2,323*	*$1,244*	*$3,567*
20–24		251,192	0.86	0.38	0.33	590	225	$23,600	$6,213	$29,813	*$13,912*	*$1,398*	*$15,311*
25–29		340,136	3.32	0.38	1.26	3,098	1,171	$45,940	$9,058	$54,997	*$142,315*	*$10,607*	*$152,922*
30–34		304,776	2.49	0.47	1.16	2,080	969	$56,933	$11,159	$68,092	*$118,403*	*$10,810*	*$129,213*
35–39		325,759	4.01	0.49	1.97	3,582	1,758	$62,887	$11,810	$74,696	*$225,263*	*$20,762*	*$246,025*
40–44		404,756	0.55	0.49	0.27	609	295	$64,475	$11,538	$76,012	*$39,258*	*$3,407*	*$42,665*
45–49		457,789	0.98	0.49	0.47	1,223	594	$64,553	$11,512	$76,065	*$78,964*	*$6,841*	*$85,805*
50–54		322,258	0.75	0.44	0.33	665	292	$63,289	$10,254	$73,545	*$42,090*	*$2,993*	*$45,083*
55–59		184,096	1.12	0.58	0.65	564	329	$51,913	$11,352	$63,264	*$29,304*	*$3,735*	*$33,039*
60–64		92,787	0.04	0.84	0.03	9	8	$39,271	$11,863	$51,132	*$372*	*$94*	*$467*
65–69		32,589	0.56	1.83	1.02	50	91	$15,789	$12,917	$28,706	*$785*	*$1,174*	*$1,958*
70–74		49,489	0.00	2.96	0.00	0	0	$9,757	$13,291	$23,048	*$0*	*$0*	*$0*
75–79		16,954	0.00	5.80	0.00	0	0	$5,478	$12,588	$18,067	*$0*	*$0*	*$0*
80 +		22,362	0.00	6.54	0.00	0	0	$3,853	$9,810	$13,663	*$0*	*$0*	*$0*
All		2,877,586	1.63	0.62	0.76	12,833	5,999	$42,889	$10,143	$53,031	*$550,390*	*$60,848*	*$611,238*
Attribution	0.12										*$66,047*	*$7,302*	*$73,349*
Females													
15–19		44,511	0.28	1.33	0.37	34	45	$5,057	$7,598	$12,655	*$171*	*$342*	*$513*
20–24		235,445	0.17	0.90	0.16	112	100	$16,835	$12,801	$29,636	*$1,881*	*$1,284*	*$3,165*
25–29		243,882	1.49	1.16	1.73	998	1,159	$28,336	$18,827	$47,163	*$28,279*	*$21,816*	*$50,095*
30–34		297,971	0.08	1.52	0.12	66	101	$29,707	$22,337	$52,045	*$1,965*	*$2,253*	*$4,218*
35–39		331,543	1.41	1.43	2.02	1,283	1,834	$33,543	$22,150	$55,694	*$43,052*	*$40,625*	*$83,678*
40–44		407,619	0.06	1.25	0.07	62	78	$35,955	$20,588	$56,543	*$2,241*	*$1,602*	*$3,843*
45–49		368,417	0.87	1.03	0.90	879	904	$37,045	$17,911	$54,956	*$32,549*	*$16,186*	*$48,735*
50–54		196,473	0.65	0.96	0.63	351	338	$36,861	$16,370	$53,230	*$12,935*	*$5,532*	*$18,467*
55–59		168,894	1.23	1.19	1.46	568	674	$30,497	$17,036	$47,534	*$17,328*	*$11,476*	*$28,804*
60–64		110,880	0.80	1.70	1.36	243	413	$21,322	$17,702	$39,024	*$5,172*	*$7,318*	*$12,489*
65–69		45,115	0.00	4.60	0.00	0	0	$6,528	$18,408	$24,936	*$0*	*$0*	*$0*
70–74		14,791	0.00	8.25	0.00	0	0	$2,919	$17,550	$20,469	*$0*	*$0*	*$0*
75–79		16,563	1.30	15.88	20.61	59	935	$1,271	$16,510	$17,781	*$75*	*$15,439*	*$15,514*
80 +		25,551	0.00	33.00	0.00	0	0	$646	$12,862	$13,507	*$0*	*$0*	*$0*
All		2,507,655	0.68	1.75	0.96	4,654	6,580	$23,642	$17,153	$40,795	*$110,029*	*$112,873*	*$222,902*
Attribution	0.12										*$13,203*	*$13,545*	*$26,748*
Total		5,385,240									*$660,419*	*$173,721*	*$834,140*
Attribution											*$79,250*	*$20,847*	*$100,097*

Source: Grosse et al. (2009); NCVS, 2007 (BJS, 2009a); NSDUH, 2007 (SAMHSA, 2009b)

All costs reported in red italics are in thousands.

Table 1.4. Victimization Costs for Lost Productivity: Property Crimes

		Incident Consequences: Property Crimes						Adjusted Productivity			Lost Productivity		
		(N)	Lost Work (Mean Days)	Ratio (Work/Home)	Lost Home (Mean Days)	Annualized Product (Work)	(Home)	MPV (Annual)	HPV (Annual)	TPV (Annual)	MPV (Total)	HPV (Total)	TPV (Total)
Males													
15–19		196,588	1.65	0.73	1.20	888	646	$6,333	$4,659	$10,992	*$5,623*	*$3,011*	*$8,634*
20–24		889,332	0.14	0.38	0.05	340	130	$23,600	$6,213	$29,813	*$8,015*	*$806*	*$8,821*
25–29		805,733	0.30	0.38	0.11	663	250	$45,940	$9,058	$54,997	*$30,437*	*$2,269*	*$32,706*
30–34		820,605	0.10	0.47	0.05	235	110	$56,933	$11,159	$68,092	*$13,387*	*$1,222*	*$14,609*
35–39		1,027,583	0.51	0.49	0.25	1,448	711	$62,887	$11,810	$74,696	*$91,074*	*$8,394*	*$99,468*
40–44		1,075,824	0.52	0.49	0.25	1,534	744	$64,475	$11,538	$76,012	*$98,907*	*$8,585*	*$107,491*
45–49		1,020,279	0.11	0.49	0.05	309	150	$64,553	$11,512	$76,065	*$19,971*	*$1,730*	*$21,702*
50–54		806,955	0.30	0.44	0.13	655	288	$63,289	$10,254	$73,545	*$41,483*	*$2,950*	*$44,433*
55–59		562,662	0.13	0.58	0.08	200	117	$51,913	$11,352	$63,264	*$10,396*	*$1,325*	*$11,721*
60–64		389,002	0.03	0.84	0.03	32	27	$39,271	$11,863	$51,132	*$1,252*	*$317*	*$1,570*
65–69		264,487	0.00	1.83	0.00	0	0	$15,789	$12,917	$28,706	*$0*	*$0*	*$0*
70–74		168,106	0.00	2.96	0.00	0	0	$9,757	$13,291	$23,048	*$0*	*$0*	*$0*
75–79		161,430	1.50	5.80	8.67	661	3,833	$5,478	$12,588	$18,067	*$3,623*	*$48,251*	*$51,874*
80 +		110,258	0.00	6.54	0.00	0	0	$3,853	$9,810	$13,663	*$0*	*$0*	*$0*
All		8,298,844	0.31	0.76	0.31	6,971	7,005	$42,889	$10,143	$53,031	*$298,980*	*$71,051*	*$370,031*
Attribution	0.31										*$92,684*	*$22,026*	*$114,710*
Females													
15–19		196,127	0.01	1.33	0.02	7	10	$5,057	$7,598	$12,655	*$36*	*$73*	*$109*
20–24		854,546	0.09	0.90	0.08	208	186	$16,835	$12,801	$29,636	*$3,496*	*$2,387*	*$5,883*
25–29		976,884	0.12	1.16	0.14	333	386	$28,336	$18,827	$47,163	*$9,427*	*$7,273*	*$16,700*
30–34		931,841	0.06	1.52	0.08	141	215	$29,707	$22,337	$52,045	*$4,182*	*$4,794*	*$8,976*
35–39		1,126,498	0.10	1.43	0.15	319	456	$33,543	$22,150	$55,694	*$10,707*	*$10,104*	*$20,811*
40–44		1,116,727	0.33	1.25	0.41	1,011	1,263	$35,955	$20,588	$56,543	*$36,360*	*$25,996*	*$62,356*
45–49		1,132,832	0.13	1.03	0.14	408	420	$37,045	$17,911	$54,956	*$15,117*	*$7,517*	*$22,635*
50–54		905,737	0.78	0.96	0.75	1,928	1,857	$36,861	$16,370	$53,230	*$71,086*	*$30,399*	*$101,485*
55–59		778,400	0.07	1.19	0.09	158	188	$30,497	$17,036	$47,534	*$4,828*	*$3,197*	*$8,025*
60–64		503,595	0.00	1.70	0.00	0	0	$21,322	$17,702	$39,024	*$0*	*$0*	*$0*
65–69		413,374	0.05	4.60	0.25	62	286	$6,528	$18,408	$24,936	*$406*	*$5,263*	*$5,669*
70–74		264,866	0.05	8.25	0.41	36	297	$2,919	$17,550	$20,469	*$105*	*$5,207*	*$5,312*
75–79		196,414	0.01	15.88	0.22	8	120	$1,271	$16,510	$17,781	*$10*	*$1,975*	*$1,985*
80 +		259,153	0.00	33.00	0.00	0	0	$646	$12,862	$13,507	*$0*	*$0*	*$0*
All		9,656,994	0.17	2.71	0.21	4,621	5,683	$23,642	$17,153	$40,795	*$109,245*	*$97,470*	*$206,715*
Attribution	0.31										*$33,866*	*$30,216*	*$64,082*
Total		17,955,838									*$408,224*	*$168,521*	*$576,746*
Attribution											*$126,550*	*$52,242*	*$178,791*

Source: Grosse et al. (2009); NCVS, 2007 (BJS, 2009a); NSDUH, 2007 (SAMHSA, 2009b)

All costs reported in red italics are in thousands.

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Chapter 2. The Impact of Illicit Drug Use on Health

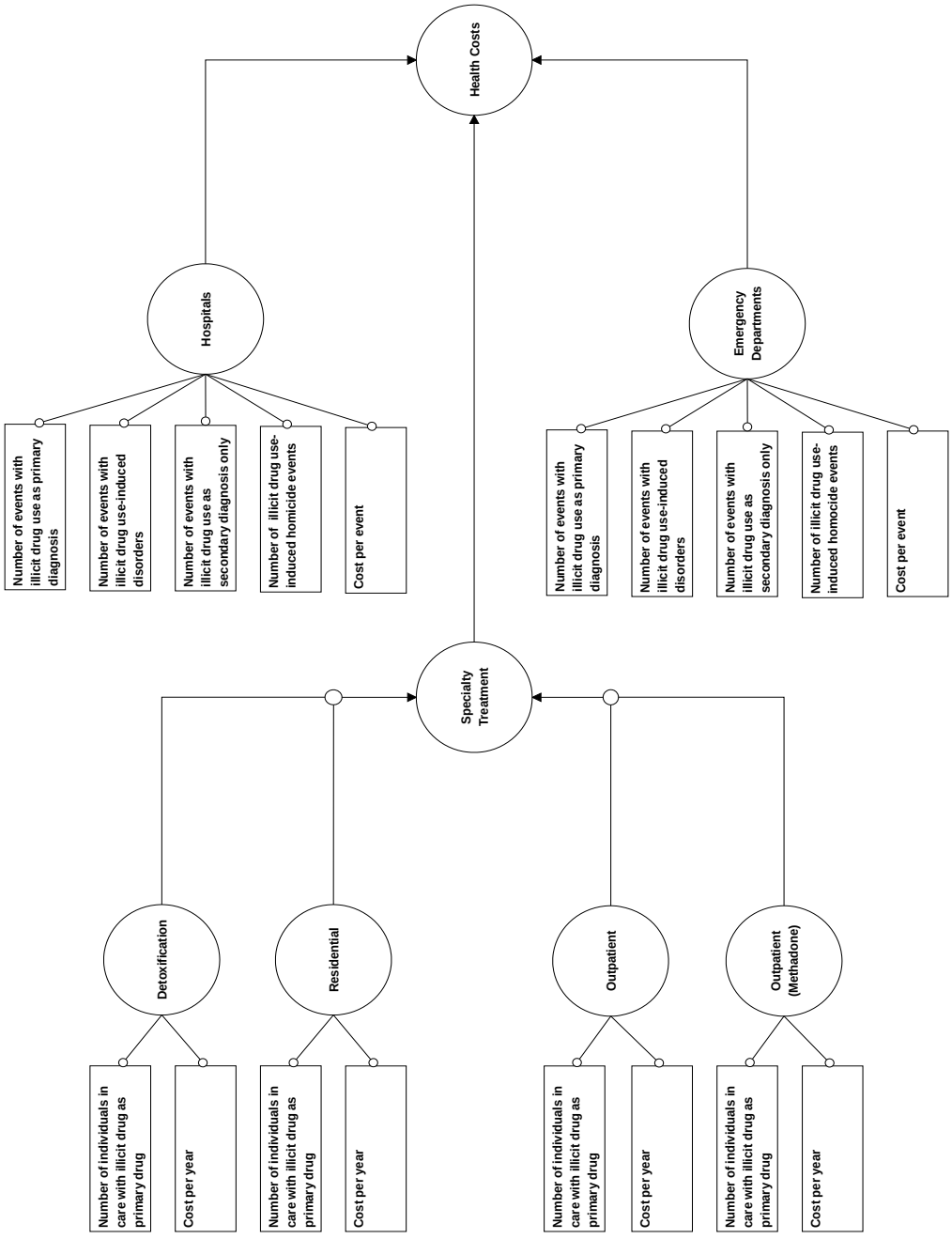
In this section we attempt to place a dollar value on healthcare costs attributable to illicit drug use. Our general analytical scheme is presented in Figure 2.1. As is made evident there, we focus on treatment for illicit drug use delivered in specialty settings (detoxification, residential, outpatient, and outpatient methadone), treatment for illicit-drug use as well as illicit drug use-induced medical disorders delivered in hospitals and emergency departments, and treatment for illicit drug use-induced homicide delivered in hospitals and emergency departments. We also consider other components of cost not represented in Figure 2.1, notably those associated with insurance administration, as well as federally funded drug prevention initiatives, federally funded prevention and treatment research, and living with AIDS.

Specialty Treatment

We rely upon four sources of data in developing estimates associated with treatment for illicit drug use delivered in specialty settings:

1. The National Survey of Substance Abuse Treatment Services (N-SSATS) is conducted annually by the Substance Abuse and Mental Health Services Administration (SAMHSA) and includes aggregate (facility-level) data on population characteristics, service settings, and other information that is relevant to our task. We use data for 2007 to develop estimates of the size of the in-care populations for detoxification, residential, outpatient, and outpatient methadone programs (SAMHSA, 2009a).
2. The Treatment Episode Data Set (TEDS)—another SAMHSA reporting system—includes components for both admissions to (TEDS-A) and discharges from (TEDS-D) all state-licensed programs in the United States. These are individual-level databases, and we use the 2007 admissions component to identify the proportions of populations in detoxification, residential, outpatient, and outpatient methadone programs whose charges are covered by public payers, as well as the proportions of populations in detoxification, residential, outpatient, and outpatient methadone programs whose primary substance of abuse is an illicit drug (SAMHSA, 2010).
3. The Substance Abuse Treatment Cost Allocation and Analysis Template (SATCAAT) was developed by SAMHSA to provide a standardized format for collecting data on provider expenses. The approach is rigorous and compliant with Generally Acceptable Accounting Principles (GAAP), but has been applied in only a limited number of community-based Service Delivery Units (SDUs). Nonetheless, this is the best available source of information on the cost of detoxification, and we use the number provided by the SATCAAT report, adjusted to 2007 dollars, as our estimate for detoxification (Harwood et al., 2001).
4. The Alcohol and Drug Services Study (ADSS) was a more comprehensive and representative study completed by SAMHSA that developed cost data for residential, outpatient, and outpatient methadone programs (SAMHSA, 2003). We use the numbers reported there as our estimates for programs of this kind, again adjusted to 2007 dollars.

Figure 2.1. Specialty Treatment, Hospital, and Emergency Department Cost Components



All costs reported in red italics are in thousands.

Our findings are presented in Table section 2.1-a (Specialty Treatment for Illicit Drug Use). Reading across the column titles:

- Total (census) is the estimated size of the in-care population of each specialty treatment type that has charges covered by a public payer. These estimates are based upon the number of facilities of each type times the mean facility census of each corresponding facility type as reported by N-SSATS, times the proportion of TEDS-A admissions for each corresponding facility type in which charges are covered by a public payer.
- Attribution (a) is the proportion of the Total (census) for each specialty treatment type that has an illicit drug as its primary substance of abuse. This estimate is also based upon TEDS-A admissions data.
- Attribution (b) is the proportion of the Total (census) that has an illicit drug use as its primary substance of abuse and to which causal inference will be made. This is by definition 1.00.
- Attribution (c) is the product of (Total (census)) (Attribution (a)) (Attribution (b)). It is thus the size of the in-care population of each specialty treatment type that has treatment charges covered by a public payer, an illicit drug as its primary substance of abuse, and to which causal inference will be made.
- Cost (per day) is based upon SAATCAT estimates for detoxification and ADSS estimates for residential, outpatient, and outpatient methadone. These numbers are expressed in 2007 dollars.
- Cost (per person) is annualized Cost (per day) and again expressed as 2007 dollars.
- Total Cost is the product of (Attribution (c)) (Cost (per person)).

The public costs of specialty treatment for illicit drug use are estimated to be *$465,213*, *$1,223,800*, *$1,028,994*, and *$650,557*, for detoxification, residential, outpatient, and outpatient methadone programs, respectively, subtotaling *$3,368,564*. Beyond this, the United States Department of Veterans Affairs (VA) obligated *$347,504* for treatment of illicit drug use (VA, 2008). Treatment expenditures by DoD and ONDCP are adjusted by the proportion of TEDS-A cases for CY2007 with an illicit drug as the primary drug of abuse (approximately 0.56), yielding an additional *$7,825* and summing (with *$347,504*) to *$354,774*. Specialty Treatment costs thus total *$3,723,338*.

Hospitals and Emergency Departments

In the preceding chapter we were able to identify drug possession and trafficking crimes based upon the controlling offense, and these were attributed wholly to illicit drug use. The same held true for what we termed instrumental offenses. But we found it necessary to make attribution regarding the role of illicit drugs in motivating offenses that were only drug-related in nature. A similar problem exists here: We are able to identify hospital and emergency department events that are clearly drug-induced (involving dependence or poisoning, for example) as well as those that can be caused by drug-using behavior (including hepatitis B, hepatitis C, HIV, and tuberculosis). But in the latter case, attribution is required.

All costs reported in red italics are in thousands.

Table 2.1. Specialty Treatment, Hospital, and Emergency Department Cost Components

Table 2.1-a		Total (Census)	Attribution (a) (Prop.)	Attribution (b) (Prop.)	Attribution (c) (Census)	Cost (Per Day)	Cost (Per Person)	Cost (Total)
Specialty Treatment for Illicit Drug Use								
Detoxification		9,203	0.553	1.000	5,093	$250.26	$91,345	*$465,213*
Residential		59,166	0.707	1.000	41,854	$80.11	$29,240	*$1,223,800*
Outpatient		384,449	0.620	1.000	238,320	$11.83	$4,318	*$1,028,994*
Outpatient (Methadone)		141,033	0.949	1.000	133,882	$13.31	$4,859	*$650,557*
							Subtotal	*$3,368,564*
Source: ADSS (SAMHSA, 2003); N-SSATS, 2007 (SAMHSA, 2009a); SATCAAT (Harwood et al.,2001); TEDS-A, 2007 (SAMHSA, 2010)								
Table 2.1-b		**Total (Events)**	**Attribution (a) (Prop.)**	**Attribution (b) (Prop.)**	**Attribution (c) (Events)**	**Cost (Per Day)**	**Cost (Per Event)**	**Cost (Total)**
Treatment for Illicit Drug-Induced Illness								
Hospitals								
Illicit Drug Use	(DU)	195,076	1.000	1.000	195,076	—	$16,588	*$3,235,842*
Hepatitus B	(HB)	1,444	0.181	1.000	261	—	$38,131	*$9,951*
Hepatitus C	(HC)	6,352	0.162	1.000	1,029	—	$32,955	*$33,909*
HIV	(HV)	43,393	0.213	1.000	9,247	—	$52,445	*$484,963*
Tuberculosis	(TB)	3,707	0.048	1.000	177	—	$81,078	*$14,335*
Other	(OT)	21,758,339	0.029	0.100	62,011	—	$28,127	*$1,744,188*
							Subtotal	*$5,523,189*
Emergency Departments								
Illicit Drug Use	(DU)	76,758	1.000	1.000	76,758	—	$2,064	*$158,432*
HIV	(HV)	6,904	0.002	1.000	12	—	$2,263	*$28*
Other	(OT)	35,337,480	0.001	0.100	1,767	—	$1,471	*$2,600*
							Subtotal	*$161,059*
Source: NEDS, 2007 (AHRQ, 2010); NIS, 2007 (AHRQ, 2009)								
Table 2.1-c		**Total (Events)**	**Attribution (a) (Prop.)**	**Attribution (b) (Prop.)**	**Attribution (c) (Events)**	**Cost (Per Day)**	**Cost (Per Event)**	**Cost (Total)**
Treatment for Illicit Drug-Induced Homicide								
Hospitals		976	—	0.120	117	—	$108,378	*$12,700*
Emergency Departments		329	—	0.120	39	—	$6,033	*$238*
							Subtotal	*$12,938*
Source: NEDS, 2007 (AHRQ, 2010); NIS, 2007 (AHRQ, 2009)								
Insurance Administration	0.06	—	—	—	—	—	—	*$544*
Total		—	—	—	—	—	—	*$9,066,294*

All costs reported in red italics are in thousands.

Each year the Agency for Healthcare Research and Quality (AHRQ) via the Healthcare Cost and Utilization Project (HCUP) collects data on nationally representative samples of inpatient hospital discharge events and emergency department events. These are the Nationwide Inpatient Sample (NIS) and Nationwide Emergency Department Sample (NEDS), respectively. In 2007, the NIS included more than 8 million records and the NEDS included more than 26 million records (AHRQ, 2009, 2010). Identical data-coding schemes are used in the two studies for variables that are of interest to us.

Information on diagnoses is coded using International Classification of Diseases-Revision 9 (ICD-9) conventions. Data on as many as 15 diagnoses are provided on the discharge record, and the primary diagnosis always appears in position one. As many as four "external cause of injury" codes (E-codes) are stored in separate arrays. We proceed in the following manner:

- Cases in the NIS are selected where charges are covered by a public payer. NIS cases may include emergency department charges (as when an individual is admitted to the hospital following treatment in an emergency department); if this occurs, then emergency department charges are included in the cost of hospital treatment.
- Cases in the NEDS are also selected where charges are covered by a public payer. Such cases may be released routinely, admitted to a hospital with which an emergency department is associated, or transferred to another hospital. In order to avoid double-counting relative to the NIS, we include only cases that are released routinely.[12]
- A measure is constructed using information on the primary diagnosis coded to indicate the presence of a mental or behavioral disorder (MD), intentional poisoning (IP), accidental poisoning (AP), or poisoning of unknown intent (UP) that has been induced by illicit drug use. In the discussion that follows, these codes (MD, IP, AP, and UP) are identified collectively as drug use (DU). A primary diagnosis of hepatitis B, hepatitis C, HIV, or tuberculosis is coded as a value for this measure as well (HB, HC, HV, or TB, respectively). Cases in which there is no primary diagnosis of DU, HB, HC, HV, or TB are assigned a preliminary value of "Other" (OT).
- A second measure is constructed by examining the remaining 14 diagnosis fields and the four E-code fields for evidence of illicit drug use. This is treated as a dichotomous variable. In cases where there is evidence in the primary diagnosis field that a drug was involved but the drug is unspecified, this second measure is used as appropriate to impute a primary diagnosis of DU.
- A cross-tabulation of the first measure against the second shows that cases in which the first measure is coded DU are 100 percent drug-induced (this is true by definition): row percentages for HB, HC, HV, TB, and OT constitute the attribution factors for the primary diagnoses that are used in subsequent analyses.

Our findings are presented in Table section 2.1-b (Treatment for Illicit Drug-Induced Illness). Reading across the column titles:

- Total (events) is the estimated number of hospital or emergency department events that have treatment charges covered by a public payer.
- Attribution (a) is the proportion of Total (events) for hospitals or emergency departments that have an indication of illicit drug use.

12. There are other less common release statuses as well, involving, for example, transfers to nursing facilities (and these are excluded from consideration). Death is also a possible outcome, and we allow this as a valid release status for nonhomicide cases.

- Attribution (b) is the proportion of Total (events) for hospitals or emergency departments that have an indication of illicit drug use and to which causal inference will be made. This is 1.00 for DU, HB, HC, HV, and TB, but category OT is discounted arbitrarily by 90 percent (resulting in a value of 0.10 for Attribution (b)).
- Attribution (c) is the product of (Total (events)) (Attribution (a)) (Attribution (b)). It is the number of events for hospitals or emergency departments that have treatment charges covered by a public payer, have an indication of illicit drug use, and to which causal inference will be made.
- Cost (per event) is based upon NIS data for hospitals and NEDS data for emergency departments. These numbers are expressed in 2007 dollars.
- Total Cost is the product of (Attribution (c)) (Cost (per event)).

Costs associated with hospital treatment for DU, HB, HC, HV, TB, and OT subtotal *$5,523,189*, while costs associated with emergency department treatment of DU, HV, and OT subtotal *$161,059*. Costs associated with hospital treatment and emergency department treatment thus total *$5,684,248*.

Homicide

The same procedure is followed here as was the case when dealing with hospital and emergency department treatment for illicit drug-induced disorders. Again we draw upon the NIS and the NEDS and apply the same selection and definitional criteria. However, now we make use of ICD-9 codes for intentional assault, require that NIS cases be dead upon discharge from the hospital, and require that NEDS cases be dead upon release from the emergency department. There is no Attribution (a) for these cases because illicit drugs are assumed to be in the body of the perpetrator rather than in the body of the victim. And for Attribution (c) we use the overall attribution rate for violent offenses as described in the preceding chapter on crime (0.12). Our findings are presented in Table section 2.1-c (Treatment for Illicit Drug-Induced Homicide). The hospital costs associated with drug-induced homicide are *$12,700* and the emergency department costs associated with drug-induced homicide are *$238*, for a subtotal of *$12,938*.

Concern has often been expressed regarding the high medical costs associated with treatment of homicide victims. And we do in fact find that the cost of treating a homicide victim in a hospital setting is greater than other hospital-based costs. But we also find that the number of homicide victims actually receiving hospital or emergency department care is very small.

As a check on these estimates, consider that about 16,000 homicides occurred in 2007. One study conducted in Memphis reported that the proportion of homicide victims Dead on Arrival (DOA) was about 0.74 (Giacopassi et al., 1992). Another study conducted in upstate New York reported that the proportion of homicide victims DOA was about 0.71 (Katz et al., 1979). Most homicide victims do not arrive at a hospital in time to receive medical care. And when we consider—based upon our analysis of NIS and NEDS data—that when medical care is received by a homicide victim, it is typically "self-paid" (and excluded because there is no cost to the public), then the estimates appear quite plausible.[13]

13. There is also a well-documented decline in rates of lethality relative to rates of assault: if the victim of an assault survives long enough to make it to a hospital, then he is more likely to survive than had been the case in the past (see, for example, Harris et al., 2002).

Insurance Administration

Insurance administration costs are not included in the costs of care identified above, and they typically amount on average to 6 percent overhead on medical services (Harwood et al., 1998; ONDCP, 2001, 2004; Mark et al., 2005, 2007). We use that number here, and this yields a cost of *$544*.

Other

Three other components are relevant to our calculation of health costs: These are federal funding for state and local prevention initiatives, federal funding for research on prevention and treatment of illicit drug use, and the prescription drug costs associated with treating drug-induced AIDS.

- In FY2007, the federal government obligated *$1,428,400* for drug abuse prevention. This includes monies that are in principle available to support programs dealing with alcohol and tobacco as well as illicit drugs. As before, we multiply this quantity by the proportion of TEDS-A cases for CY2007 with an illicit drug as the primary drug of abuse (approximately 0.56) to arrive at an estimate of *$803,761* for prevention spending related to illicit drug use.
- The federal government is also a major contributor of funding for substance abuse treatment and prevention research. In FY2007, this totaled *$1,011,800*. We apply the same procedure as above to arrive at an estimate for research related to illicit drug use and this yields *$569,340*.
- Although not directly comparable for methodological reasons, the CDC reported about 1 million individuals living with HIV/AIDS in both 2003 and 2006 (CDC, 2008). In 2006, about 18.5 percent of these cases were attributable to injection drug use. Using similar numbers, Teshale et al. (2005) estimated that about 269,000 individuals were receiving antiretroviral treatment (ART) in 2003. With the annual cost of ART averaging about $12,500, this translates (conservatively) into illicit drug-induced costs of (12,500) (0.185) (269,000) =*$622,063* for 2007.

Taken together, other costs total *$1,995,164*.

All costs reported in red italics are in thousands.

All costs reported in red italics are in thousands.

Chapter 3. The Impact of Illicit Drug Use on Productivity

In this section, we attempt to place a dollar value on lost productivity attributable to illicit drug use. Lost productivity occurs generally by virtue of incapacitation: in one case, a woman works less than she could because of illness or lack of motivation; in another, a man in a residential treatment program, in a hospital, or in prison may realize none of his productive potential. In a sense we can regard lost productivity as a consequence of events that occur in the preceding domains that we have discussed (Health and Crime). Our general analytical scheme is presented in Figure 3.1. As is made evident there, we focus on labor participation, specialty drug treatment, hospitalization, incarceration, and premature mortality attributable to illicit drug use as the principal components of lost productivity.

Labor Participation

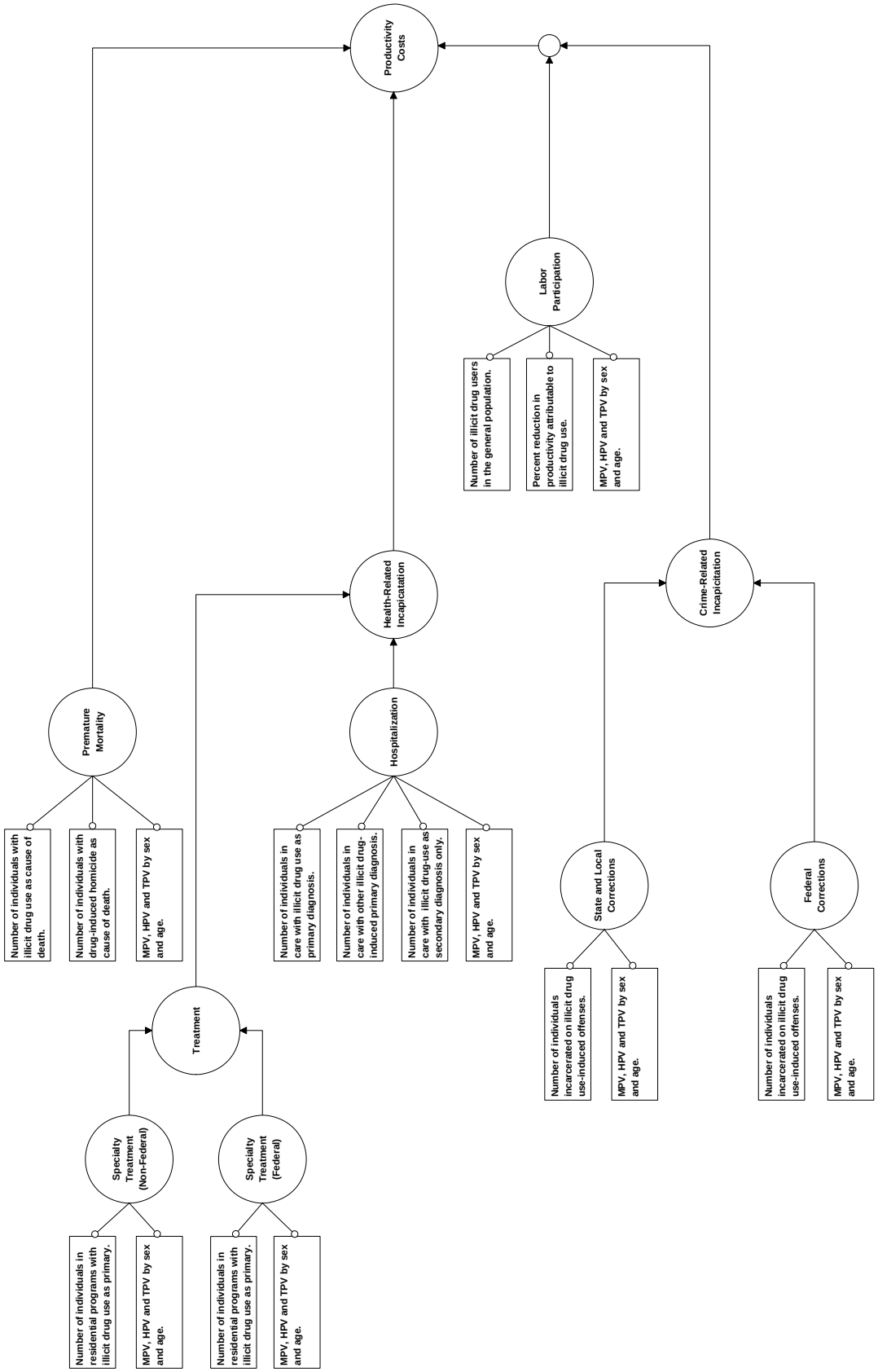
Gauging the reduction in productivity attributable to illicit drug use requires that we have estimates of productivity (both workforce and household) for a population unaffected by illicit drug use. These should be available at a level of resolution sufficient to capture variability in productivity known to be correlated with both sex and age. There is no single source of information that is well suited to this purpose, and so we rely upon two nationally representative studies to support our analyses.

The National Survey on Drug Use and Health (NSDUH) is a large household survey conducted each year by SAMHSA. In 2007, it included 67,870 respondents (SAMHSA, 2009b). Although some classes of drug users are known to be underrepresented in the survey, it remains the most comprehensive and widely used source of information on illicit drug use in the United States. NSDUH provides indicators for drug abuse and dependence, and it is possible to construct a composite measure of illicit drug use consistent with the definitions set forth in the Overview of this report. This includes prior year abuse of or dependence upon heroin, cocaine, methamphetamine, and marijuana as well as controlled pharmaceuticals (pain relievers, tranquilizers, stimulants, and sedatives). That is the approach taken here.

NSDUH also provides information that might be used to construct measures of productivity, including both income and hours worked. But income falls short on two counts: it does not monetize the value of household productivity, and it is too coarsely coded for use in our analyses. Information on hours worked (with a range of 1–61) is gathered only on workforce participants. But by expanding the definition of hours worked to include nonworkforce participants (resulting in a measure with a range of 0–61) and limiting this measure to include only respondents aged 15 and older, we can produce an index that allows the percent reduction in productivity to be estimated—separately for males and females—for later use in projecting onto an external set of estimates for both workforce and household productivity. That source, ATUS, was introduced in Chapter 1.

ATUS is conducted each year by the BLS. A large, nationally representative sample of household members is selected and asked to record their activities in a diary for one 24-hour period. The information may be used to produce national estimates of MPV, HPV, and TPV. Grosse et al. (2009) provide such estimates for males and females disaggregated by age in 5-year increments for CY2007.

Figure 3.1. Lost Productivity Cost Components



All costs reported in red italics are in thousands.

Since information on both workforce and household productivity is gathered and available by sex and age, this would at first blush appear to be a viable base upon which to construct our estimates. But ATUS does not allow us to identify illicit drug users. And since this is a sample of the general population, we must assume that it includes individuals who are users of illicit drugs. If, as we believe, there is a relationship between illicit drug use and individual productivity, then ATUS estimates of MPV, HPV, and TPV will be affected accordingly.

- We therefore begin with NSDUH by developing separate Ordinary Least Squares (OLS) estimates for males and females of the reduction in productivity attributable to illicit drug use, holding other factors (age, marital status, education, and alcohol abuse or dependence) constant. Interactions between age and these independent variables are not included in the model due to sample size constraints (relatively few illicit drug users are represented in NSDUH). For respondents aged 15 and over, the results indicate a 17 percent reduction in productivity attributable to drug abuse or dependence for males and an 18 percent reduction in productivity attributable to drug abuse or dependence for females.
- Because productivity is related to age and there are few age categories represented in NSDUH, we make use of the ATUS 5-year groupings described above. This requires mapping the NSDUH age distribution for illicit drug users to the total ATUS age distribution for males and females. In some cases, there is a one-to-one correspondence between age categories. Where this is not the case, NSDUH age categories spanning several ATUS age categories are distributed across ATUS age categories using ATUS-adjusted proportions. So if 100 NSDUH illicit drug users are in an age category comprising two ATUS age categories and these two ATUS age categories represent 10 and 20 percent of the entire ATUS population, respectively, then 100 (10/30) = 33 NSDUH illicit drug users would be assigned to the first ATUS category and 100 (20/30) = 67 NSDUH illicit drug users would be assigned to the second.
- The reduction in productivity attributable to illicit drug use is assumed to vary by sex. But as noted above, there are no sex-by-age category interactions. Expressed as a proportion, this number is 0.17 for males and 0.18 for females. We assume that the proportion applicable to MPV is applicable to HPV as well. Values for MPV, HPV, and TPV given by Grosse et al. (2009) for any sex and age category are therefore adjusted by the factor $1/(1-ab)$, where a is the illicit drug-using proportion of the population in a given sex and age category and b is the reduction in productivity attributable to males or females, as appropriate.

The findings on labor participation are presented in Table 3.1. As a practical matter, the impact of our exercise on MPV, HPV, and TPV estimates for each sex and age category is modest—and this is due to the fact that there are relatively few users of illicit drugs in the general population.

We find that the aggregate impact of illicit drug use on labor participation-related TPV during 2007 is *$34,998,122* for males and *$14,239,655* for females. These losses sum to *$49,237,777*.

All costs reported in red italics are in thousands.

Table 3.1. Labor Participation

	ATUS Population (N)	NSDUH Drug Users (Prop.)	Estimated Drug Users (N)	ATUS Productivity MPV (Annual)	ATUS Productivity HPV (Annual)	ATUS Productivity TPV (Annual)	Adjusted Productivity MPV (Annual)	Adjusted Productivity HPV (Annual)	Adjusted Productivity TPV (Annual)	Lost Productivity MPV (Total)	Lost Productivity HPV (Total)	Lost Productivity TPV (Total)
Males												
15–19	11,178,644	0.0902	1,007,870	$6,233	$4,586	$10,819	$6,333	$4,659	$10,992	*$1,114,766*	*$820,202*	*$1,934,968*
20–24	9,916,897	0.0845	837,554	$23,252	$6,121	$29,373	$23,600	$6,213	$29,813	*$3,452,360*	*$908,821*	*$4,361,181*
25–29	9,742,499	0.0845	822,825	$45,262	$8,924	$54,186	$45,940	$9,058	$54,997	*$6,602,131*	*$1,301,697*	*$7,903,828*
30–34	9,781,758	0.0455	444,704	$56,481	$11,070	$67,551	$56,933	$11,159	$68,092	*$4,422,064*	*$866,703*	*$5,288,767*
35–39	10,266,252	0.0283	290,273	$62,576	$11,752	$74,327	$62,887	$11,810	$74,696	*$3,188,262*	*$598,767*	*$3,786,979*
40–44	10,980,328	0.0283	310,464	$64,157	$11,481	$75,637	$64,475	$11,538	$76,012	*$3,496,179*	*$625,647*	*$4,121,772*
45–49	10,869,679	0.0283	307,335	$64,234	$11,455	$75,689	$64,553	$11,512	$76,065	*$3,465,102*	*$617,940*	*$4,083,042*
50–54	9,618,780	0.0119	114,414	$63,158	$10,233	$73,392	$63,289	$10,254	$73,545	*$1,264,737*	*$204,916*	*$1,469,672*
55–59	8,166,240	0.0119	97,136	$51,805	$11,328	$63,133	$51,913	$11,352	$63,264	*$880,736*	*$192,587*	*$1,073,323*
60–64	6,187,718	0.0119	73,602	$39,189	$11,838	$51,026	$39,271	$11,863	$51,132	*$504,832*	*$152,497*	*$657,316*
65–69	4,561,338	0.0057	25,868	$15,773	$12,904	$28,678	$15,789	$12,917	$28,706	*$71,334*	*$58,359*	*$129,698*
70–74	3,754,599	0.0057	21,293	$9,747	$13,278	$23,025	$9,757	$13,291	$23,048	*$36,285*	*$49,430*	*$85,714*
75–79	3,471,698	0.0057	19,689	$5,473	$12,576	$18,049	$5,478	$12,588	$18,067	*$18,839*	*$43,289*	*$62,128*
80+	2,936,225	0.0057	16,652	$3,849	$9,800	$13,649	$3,853	$9,810	$13,663	*$11,205*	*$28,530*	*$39,736*
All	111,432,655	0.0389	4,334,783	$42,791	$10,010	$52,801	$42,889	$10,143	$53,031	*$28,528,832*	*$6,469,383*	*$34,998,122*
Reduction	**0.17**											
Females												
15–19	10,754,387	0.0624	671,204	$4,999	$7,510	$12,509	$5,057	$7,598	$12,655	*$627,680*	*$942,963*	*$1,570,643*
20–24	10,011,191	0.0386	386,240	$16,715	$12,710	$29,425	$16,835	$12,801	$29,636	*$1,202,355*	*$914,264*	*$2,116,619*
25–29	9,628,736	0.0386	371,485	$28,134	$18,693	$46,827	$28,336	$18,827	$47,163	*$1,946,441*	*$1,293,269*	*$3,239,710*
30–34	10,082,407	0.0162	163,356	$29,618	$22,270	$51,889	$29,707	$22,337	$52,045	*$897,333*	*$674,712*	*$1,572,075*
35–39	10,497,826	0.0128	134,065	$33,464	$22,098	$55,562	$33,543	$22,150	$55,694	*$831,536*	*$549,106*	*$1,380,642*
40–44	11,345,832	0.0128	144,895	$35,870	$20,539	$56,409	$35,955	$20,588	$56,543	*$963,322*	*$551,594*	*$1,514,916*
45–49	11,234,717	0.0128	143,476	$36,958	$17,869	$54,826	$37,045	$17,911	$54,956	*$982,821*	*$475,189*	*$1,457,983*
50–54	10,221,375	0.0061	62,516	$36,819	$16,351	$53,170	$36,861	$16,370	$53,230	*$426,104*	*$189,229*	*$615,333*
55–59	8,651,357	0.0061	52,914	$30,463	$17,017	$47,480	$30,497	$17,036	$47,534	*$298,395*	*$166,687*	*$465,081*
60–64	6,948,180	0.0061	42,497	$21,298	$17,682	$38,980	$21,322	$17,702	$39,024	*$167,550*	*$139,103*	*$306,653*
65–69	5,276,799	0.0000	0	$6,528	$18,408	$24,936	$6,528	$18,408	$24,936	*$0*	*$0*	*$0*
70–74	4,623,782	0.0000	0	$2,919	$17,550	$20,469	$2,919	$17,550	$20,469	*$0*	*$0*	*$0*
75–79	4,709,730	0.0000	0	$1,271	$16,510	$17,781	$1,271	$16,510	$17,781	*$0*	*$0*	*$0*
80+	5,191,327	0.0000	0	$646	$12,862	$13,507	$646	$12,862	$13,507	*$0*	*$0*	*$0*
All	119,177,646	0.0180	2,147,443	$23,676	$17,029	$40,704	$23,642	$17,153	$40,795	*$8,343,536*	*$5,896,115*	*$14,239,655*
Reduction	**0.18**											
Total	230,610,301		6,482,226							*$36,872,368*	*$12,365,499*	*$49,237,777*

Source: Grosse et al., 2009; NSDUH, 2007 (SAMHSA, 2009b)

All costs reported in red italics are in thousands.

Specialty Treatment

Illicit drug users who enter residential drug treatment are not able to realize either market productivity or household productivity while in care. To estimate the impact of illicit drug use associated with specialty treatment, we turn again to TEDS-A and TEDS-D.

The former provides information on all individuals admitted to state-licensed drug treatment programs during CY2007 (SAMHSA, 2010). Our interest is in individuals admitted to non-hospital-based short-term and long-term residential treatment programs. The latter provides information on all individuals discharged from state-licensed drug treatment programs during a given year. Of particular relevance to us here is the fact that it provides information on length of stay (LOS). As before, we are interested in individuals discharged from short- term and long-term non-hospital-based residential treatment programs.[14] TEDS-D for 2006 is used for this purpose (SAMHSA, 2009c).

Drug treatment programs deal with individuals who use alcohol only and illicit drugs only, although as a practical matter, there are few illicit drug users who do not also use alcohol. TEDS (A and D) provide information on primary, secondary, and tertiary drugs of abuse. It is conventional to make use of the primary drug of abuse as a criterion variable in work of this kind, and so we limit our analyses to include only individuals whose primary drug of abuse is heroin, cocaine, methamphetamine, marijuana, or a controlled pharmaceutical (pain relievers, stimulants, tranquilizers, and sedatives).

The size of the in-care population for non-hospital-based residential programs is given by multiplying the mean number of admissions experienced per day during 2007 (from TEDS-A) by the mean number of days in care for each sex and age category (from TEDS-D for 2006). Since the age categories in TEDS do not map exactly to the age categories that are used elsewhere in the calculation of lost productivity, we make use of the procedure described above for redistributing cases across ATUS age categories.

Based upon TEDS-D data, lengths of stay for non-hospital-based residential programs would appear to average about 70 days. But when this number is used to estimate the size of the in-care population, we find that it is lower than the census figure reported in N-SSATS. The ADSS authors note that facility directors have difficulty reporting accurately on LOS and often find it necessary to correct these numbers (SAHMSA, 1993). We proceed on the assumption that LOS is biased downward in TEDS-D and adjust the estimates of LOS derived from that source to comport with the overall N-SSATS count. Our findings are presented in Table 3.2. TPV losses are estimated here to be *$1,981,428* for males and *$846,779* for females. These losses sum to *$2,828,207*.

Numbers for residential treatment programs operated by the VA are reported separately in Table 3.3. These are 100 percent attributable to illicit drug use (provided in this manner at our request) and involve TPV losses of *$43,252* for males and *$1,578* for females. These losses sum to *$44,830*.

14. A question may arise as to why N-SSATS census numbers were used to estimate the sizes of in-care populations in Chapter 2, whereas TEDS-A and TEDS-D data are used for that purpose here. The answer is that we would like to capture variability in LOS associated with age before recalibrating our estimates to be consistent with N-SSATS censuses. This is important because productivity changes in a predictable manner over the course of life.

Table 3.2. Specialty Treatment (State)

	Residential Treatment (Hospitals Not Included)						Adjusted Productivity			Lost Productivity		
	ATUS		TEDS Admissions				MPV	HPV	TPV	MPV	HPV	TPV
	(N)	(Prop.)	(Prop.)	(Per Day)	(LOS)	(In Care)	(Annual)	(Annual)	(Annual)	(Total)	(Total)	(Total)
Males												
15–19	11,178,644	0.10	0.53	54.99	113.06	6,217	$6,333	$4,659	$10,992	*$39,369*	*$28,966*	*$68,335*
20–24	9,916,897	0.09	0.47	48.78	113.06	5,515	$23,600	$6,213	$29,813	*$130,156*	*$34,263*	*$164,419*
25–29	9,742,499	0.09	1.00	52.59	98.99	5,206	$45,940	$9,058	$54,997	*$239,151*	*$47,152*	*$286,303*
30–34	9,781,758	0.09	1.00	40.66	100.83	4,100	$56,933	$11,159	$68,092	*$233,438*	*$45,753*	*$279,191*
35–39	10,266,252	0.09	1.00	45.34	104.43	4,735	$62,887	$11,810	$74,696	*$297,746*	*$55,918*	*$353,659*
40–44	10,980,328	0.10	1.00	45.19	109.02	4,926	$64,475	$11,538	$76,012	*$317,623*	*$56,839*	*$374,457*
45–49	10,869,679	0.10	1.00	34.91	109.35	3,818	$64,553	$11,512	$76,065	*$246,445*	*$43,949*	*$290,394*
50–54	9,618,780	0.09	1.00	17.60	107.76	1,897	$63,289	$10,254	$73,545	*$120,039*	*$19,449*	*$139,490*
55–59	8,166,240	0.07	0.28	2.47	108.08	267	$51,913	$11,352	$63,264	*$13,854*	*$3,029*	*$16,883*
60–64	6,187,718	0.06	0.21	1.87	108.08	202	$39,271	$11,863	$51,132	*$7,941*	*$2,399*	*$10,339*
65–69	4,561,338	0.04	0.16	1.38	108.08	149	$15,789	$12,917	$28,706	*$2,353*	*$1,925*	*$4,279*
70–74	3,754,599	0.03	0.13	1.14	108.08	123	$9,757	$13,291	$23,048	*$1,197*	*$1,631*	*$2,828*
75–79	3,471,698	0.03	0.12	1.05	108.08	113	$5,478	$12,588	$18,067	*$622*	*$1,428*	*$2,050*
80 +	2,936,225	0.03	0.10	0.89	108.08	96	$3,853	$9,810	$13,663	*$370*	*$941*	*$1,311*
All	111,432,655	1.00				37,363	$42,889	$10,143	$53,031	*$1,602,470*	*$378,963*	*$1,981,428*
Females												
15–19	10,754,387	0.09	0.52	30.29	100.64	3,049	$5,057	$7,598	$12,655	*$15,418*	*$23,162*	*$38,580*
20–24	10,011,191	0.08	0.48	28.20	100.64	2,838	$16,835	$12,801	$29,636	*$47,777*	*$36,329*	*$84,106*
25–29	9,628,736	0.08	1.00	39.46	99.03	3,908	$28,336	$18,827	$47,163	*$110,741*	*$73,579*	*$184,320*
30–34	10,082,407	0.08	1.00	28.25	101.37	2,863	$29,707	$22,337	$52,045	*$85,058*	*$63,956*	*$149,016*
35–39	10,497,826	0.09	1.00	28.28	102.40	2,896	$33,543	$22,150	$55,694	*$97,142*	*$64,148*	*$161,290*
40–44	11,345,832	0.10	1.00	25.03	103.04	2,579	$35,955	$20,588	$56,543	*$92,719*	*$53,091*	*$145,810*
45–49	11,234,717	0.09	1.00	16.79	101.12	1,697	$37,045	$17,911	$54,956	*$62,882*	*$30,403*	*$93,283*
50–54	10,221,375	0.09	1.00	6.99	98.59	689	$36,861	$16,370	$53,230	*$25,408*	*$11,284*	*$36,692*
55–59	8,651,357	0.07	0.24	0.63	92.82	58	$30,497	$17,036	$47,534	*$1,772*	*$990*	*$2,762*
60–64	6,948,180	0.06	0.20	0.50	92.82	47	$21,322	$17,702	$39,024	*$995*	*$826*	*$1,821*
65–69	5,276,799	0.04	0.15	0.38	92.82	35	$6,528	$18,408	$24,936	*$231*	*$652*	*$884*
70–74	4,623,782	0.04	0.13	0.33	92.82	31	$2,919	$17,550	$20,469	*$91*	*$545*	*$636*
75–79	4,709,730	0.04	0.13	0.34	92.82	32	$1,271	$16,510	$17,781	*$40*	*$522*	*$562*
80+	5,191,327	0.04	0.15	0.38	92.82	35	$646	$12,862	$13,507	*$23*	*$448*	*$471*
All	119,177,646	1.00				20,757	23,642	17,153	40,795	*$490,740*	*$356,040*	*$846,779*
Total	230,610,301					58,120				*$2,093,210*	*$735,003*	*$2,828,207*

Source: Grosse et al., 2009; NSDUH, 2007 (SAMHSA, 2009b); TEDS-A, 2007 (SAMHSA, 2010); TEDS-D, 2007 (SAMHSA, 2009c)

All costs reported in red italics are in thousands.

Table 3.3. Specialty Treatment (Federal)

		Residential Treatment VA Admissions				Adjusted Productivity			Lost Productivity		
		(N)	(Per Day)	(LOS)	(In Care)	MPV (Annual)	HPV (Annual)	TPV (Annual)	MPV (Total)	HPV (Total)	TPV (Total)
Males											
15–19		0	0.00	0.00	0	$6,333	$4,659	$10,992	*$0*	*$0*	*$0*
20–24		121	0.33	27.06	9	$23,600	$6,213	$29,813	*$212*	*$56*	*$267*
25–29		248	0.68	28.06	19	$45,940	$9,058	$54,997	*$876*	*$173*	*$1,049*
30–34		224	0.61	32.25	20	$56,933	$11,159	$68,092	*$1,127*	*$221*	*$1,348*
35–39		589	1.61	32.79	53	$62,887	$11,810	$74,696	*$3,328*	*$625*	*$3,953*
40–44		1,024	2.81	33.85	95	$64,475	$11,538	$76,012	*$6,123*	*$1,096*	*$7,219*
45–49		2,277	6.24	34.59	216	$64,553	$11,512	$76,065	*$13,929*	*$2,484*	*$16,412*
50–54		2,339	6.41	33.64	216	$63,289	$10,254	$73,545	*$13,644*	*$2,211*	*$15,854*
55–59		1,555	4.26	32.87	140	$51,913	$11,352	$63,264	*$7,270*	*$1,590*	*$8,860*
60–64		470	1.29	29.81	38	$39,271	$11,863	$51,132	*$1,508*	*$455*	*$1,963*
65–69		85	0.23	31.58	7	$15,789	$12,917	$28,706	*$116*	*$95*	*$211*
70–74		27	0.07	29.85	2	$9,757	$13,291	$23,048	*$22*	*$29*	*$51*
75–79		7	0.02	25.29	0	$5,478	$12,588	$18,067	*$3*	*$6*	*$9*
80 +		1	0.00	21.00	0	$3,853	$9,810	$13,663	*$0*	*$1*	*$1*
All		8,967	24.57	33.20	816	$42,889	$10,143	$53,031	*$34,980*	*$8,272*	*$43,252*
Attribution	1.00								*$34,980*	*$8,272*	*$43,252*
Females											
15–19		0	0.00	0.00	0	$5,057	$7,598	$12,655	*$0*	*$0*	*$0*
20–24		8	0.02	20.38	0	$16,835	$12,801	$29,636	*$8*	*$6*	*$13*
25–29		13	0.04	26.38	1	$28,336	$18,827	$47,163	*$27*	*$18*	*$44*
30–34		28	0.08	26.75	2	$29,707	$22,337	$52,045	*$61*	*$46*	*$107*
35–39		47	0.13	33.96	4	$33,543	$22,150	$55,694	*$147*	*$97*	*$244*
40–44		94	0.26	36.59	9	$35,955	$20,588	$56,543	*$339*	*$194*	*$533*
45–49		134	0.37	31.37	12	$37,045	$17,911	$54,956	*$427*	*$206*	*$633*
50–54		84	0.23	32.05	7	$36,861	$16,370	$53,230	*$272*	*$121*	*$393*
55–59		18	0.05	31.83	2	$30,497	$17,036	$47,534	*$48*	*$27*	*$75*
60–64		6	0.02	53.33	1	$21,322	$17,702	$39,024	*$19*	*$16*	*$34*
65–69		2	0.01	19.50	0	$6,528	$18,408	$24,936	*$1*	*$2*	*$3*
70–74		0	0.00	0.00	0	$2,919	$17,550	$20,469	*$0*	*$0*	*$0*
75–79		0	0.00	0.00	0	$1,271	$16,510	$17,781	*$0*	*$0*	*$0*
80 +		0	0.00	0.00	0	$646	$12,862	$13,507	*$0*	*$0*	*$0*
All		434	1.19	32.53	39	23,642	17,153	40,795	*$914*	*$663*	*$1,578*
Attribution	1.00								*$914*	*$663*	*$1,578*
Total		9,401	26		854				*$35,895*	*$8,936*	*$44,830*
Attribution									*$35,895*	*$8,936*	*$44,830*

Source: Grosse et al., 2009; NSDUH, 2007 (SAMHSA, 2009b); special analysis by VA staff (VA, 2010)

All costs reported in red italics are in thousands.

Hospitalization

Whereas the motivation for admission to residential drug treatment is clear, the motivation for hospitalization must in part be inferred. When dealing with criminal behavior, we were able to identify drug possession and trafficking offenses based upon the controlling offense, and these were attributed wholly to illicit drug use. The same held true for what we termed instrumental offenses. But we found it necessary to make attribution regarding the role of illicit drugs in motivating offenses that were drug-related in nature. A similar problem exists here: We are able to identify hospital stays that are clearly drug-induced (involving dependence or poisoning for example) as well as those that are caused in part by drug-using behavior (including hepatitis B, hepatitis C, HIV, and tuberculosis). In the latter case, some form of attribution is required. The role of drug use in producing a marginal increase in hospital LOS is often cited in the literature as well—and we consider this possibility in the discussion that follows.

As noted in Chapter 2, AHRQ—via HCUP—collects data annually on a nationally representative sample of inpatient hospital discharge events. In 2007, the NIS included more than 8 million records. We take these as our source here (AHRQ, 2009).

Information on diagnoses is coded using ICD-9 conventions. Data on as many as 15 diagnoses are provided on the discharge record, and the primary diagnosis always appears in position one. As many as four "external cause of injury" codes (E-codes) are stored in separate arrays. We proceed in the following manner:

- A measure is constructed using information on the primary diagnosis coded to indicate the presence of a mental or behavioral disorder (MD), intentional poisoning (IP), accidental poisoning (AP), or poisoning of unknown intent (UP) that has been induced by illicit drugs. A primary diagnosis of hepatitis B, hepatitis C, HIV, or tuberculosis is coded as a value for this measure as well (HB, HC, HIV, or TB, respectively).
- A second measure is constructed by examining the remaining 14 diagnosis fields and the four E-code fields for evidence of illicit drug use. This is treated as a dichotomous variable. In cases where there is evidence in the primary diagnosis field that a drug was involved but the drug is unspecified, this second measure is used to impute, where appropriate, a primary diagnosis involving illicit drug use.
- A cross-tabulation of the first measure against the second shows that cases in which the first measure is coded MD, IP, AP, or UP are 100 percent drug-induced (this is true by definition): row percentages for HB, HC, HIV and TB constitute the attribution factors for these primary diagnoses that are used in subsequent analyses.

As was the case in the preceding section, we again assume that the hospital population is at equilibrium over the course of CY2007 and make use of information on admissions per day and mean LOS (measured in days) to construct population estimates for each category of sex and age. These are in turn multiplied by adjusted ATUS productivity estimates to produce estimates of hospitalization-related lost productivity attributable to illicit drug use.

Our findings are presented in Table 3.4 for primary diagnoses that are fully attributable to illicit drug use and in Tables 3.5–3.8 for hepatitis B, hepatitis C, HIV, and tuberculosis. Summing over Tables 3.4–3.8, the results show hospitalization-related TPV losses of *$148,942* for males and *$99,311* for females attributable to illicit drug use.

We are also interested in cases in which the primary diagnosis is not illicit drug use or an illicit drug use-induced disorder per se but

rather another medical problem with which illicit drug use is comorbid. Our findings are presented in Table 3.9. The proportion of cases of this kind is relatively small (0.03 for males and 0.01 for females). Applying an arbitrary attribution factor of 0.10 to these numbers yields *$29,074* for males and *$9,933* for females. The role of illicit drug use in extending LOS in cases where the primary diagnosis is not drug-induced is often cited in the literature. We find that while LOS is on average a day longer when illicit drug use is comorbid with another disorder, its independent effect (when modeled simultaneously with other comorbid conditions) can be measured in minutes. And so we do not consider the matter further.[15]

Losses attributable to hospitalization sum to *$287,260*.

Incarceration

In Chapter 2 we reported on the impact of illicit drug use on crime in the United States. As part of that exercise, we calculated the numbers of individuals in jail, prison, probation, and parole statuses held on what we believed to be drug-induced offenses. This involved the use of attribution factors associated with different offense types. We carry those numbers forward here and provide estimates of lost productivity associated with drug-induced incarceration.

In considering how to value the productivity of those incapacitated by incarceration, we have two options. We can acknowledge that given all that has occurred to date in the lives of individuals under correctional supervision, their productive value is likely to be less than that of their counterparts in the general population (and apply some arbitrary discount factor to their productivity) or proceed on the assumption that if there had been no illicit drug use, their lives would have been different entirely (and therefore apply no discount factor to their productivity). As might be expected, we proceed based upon the latter assumption, which is consistent with the general approach described in the Overview of this report.

Using information on inmate populations believed to be incarcerated on drug-induced offenses presented initially in Chapter 2, we populate Table 3.10 and provide estimates of lost productivity by sex and ATUS age category. Our findings indicate incarceration-related lost TPV totaling *$44,048,432* for males and *$4,073,517* for females attributable to illicit drug use. These losses sum to *$48,121,949*.

15. Such individuals have on average seven comorbid diagnoses in addition to illicit drug use.

Table 3.4. Hospitalization (Full Attribution)

		Drug-Induced Hospital Admissions				Adjusted Productivity			Lost Productivity		
		(N)	(Per Day)	(LOS)	(In Care)	MPV (Annual)	HPV (Annual)	TPV (Annual)	MPV (Total)	HPV (Total)	TPV (Total)
Males											
15–19		12,782	35.02	4.69	164	$6,333	$4,659	$10,992	*$1,041*	*$766*	*$1,806*
20–24		22,057	60.43	4.31	260	$23,600	$6,213	$29,813	*$6,145*	*$1,618*	*$7,762*
25–29		24,532	67.21	4.17	280	$45,940	$9,058	$54,997	*$12,876*	*$2,539*	*$15,414*
30–34		25,347	69.44	3.94	274	$56,933	$11,159	$68,092	*$15,574*	*$3,052*	*$18,626*
35–39		26,177	71.72	4.31	309	$62,887	$11,810	$74,696	*$19,420*	*$3,647*	*$23,066*
40–44		28,502	78.09	4.25	332	$64,475	$11,538	$76,012	*$21,399*	*$3,829*	*$25,228*
45–49		26,942	73.81	4.39	324	$64,553	$11,512	$76,065	*$20,928*	*$3,732*	*$24,660*
50–54		22,275	61.03	4.37	267	$63,289	$10,254	$73,545	*$16,876*	*$2,734*	*$19,611*
55–59		11,251	30.82	4.49	138	$51,913	$11,352	$63,264	*$7,188*	*$1,572*	*$8,760*
60–64		5,877	16.10	4.46	72	$39,271	$11,863	$51,132	*$2,822*	*$852*	*$3,674*
65–69		3,570	9.78	4.45	44	$15,789	$12,917	$28,706	*$688*	*$563*	*$1,250*
70–74		2,411	6.61	4.69	31	$9,757	$13,291	$23,048	*$303*	*$412*	*$715*
75–79		2,369	6.49	4.84	31	$5,478	$12,588	$18,067	*$172*	*$395*	*$568*
80 +		2,998	8.21	4.58	38	$3,853	$9,810	$13,663	*$145*	*$369*	*$514*
All		217,091	594.77	4.31	2,564	$42,889	$10,143	$53,031	*$109,965*	*$26,005*	*$135,970*
Attribution	1.00								*$109,965*	*$26,005*	*$135,970*
Females											
15–19		15,726	43.08	3.40	146	$5,057	$7,598	$12,655	*$741*	*$1,113*	*$1,854*
20–24		19,870	54.44	3.65	199	$16,835	$12,801	$29,636	*$3,349*	*$2,546*	*$5,895*
25–29		20,618	56.49	3.78	214	$28,336	$18,827	$47,163	*$6,056*	*$4,024*	*$10,080*
30–34		22,305	61.11	3.68	225	$29,707	$22,337	$52,045	*$6,683*	*$5,025*	*$11,708*
35–39		21,900	60.00	4.16	250	$33,543	$22,150	$55,694	*$8,379*	*$5,533*	*$13,912*
40–44		25,714	70.45	3.86	272	$35,955	$20,588	$56,543	*$9,781*	*$5,601*	*$15,382*
45–49		24,385	66.81	3.95	264	$37,045	$17,911	$54,956	*$9,777*	*$4,727*	*$14,503*
50–54		20,796	56.98	4.02	229	$36,861	$16,370	$53,230	*$8,442*	*$3,749*	*$12,190*
55–59		11,113	30.45	4.41	134	$30,497	$17,036	$47,534	*$4,096*	*$2,288*	*$6,384*
60–64		7,045	19.30	4.57	88	$21,322	$17,702	$39,024	*$1,880*	*$1,561*	*$3,442*
65–69		5,659	15.50	4.57	71	$6,528	$18,408	$24,936	*$463*	*$1,305*	*$1,768*
70–74		4,155	11.38	4.71	54	$2,919	$17,550	$20,469	*$157*	*$942*	*$1,098*
75–79		3,819	10.46	5.09	53	$1,271	$16,510	$17,781	*$68*	*$880*	*$948*
80 +		6,082	16.66	4.92	82	$646	$12,862	$13,507	*$53*	*$1,054*	*$1,107*
All		209,187	573.11	3.98	2,281	23,642	17,153	40,795	*$53,932*	*$39,129*	*$93,060*
Attribution	1.00								*$53,932*	*$39,129*	*$93,060*
Total		426,277	1,168		4,845				*$163,897*	*$65,134*	*$229,030*
Attribution									*$163,897*	*$65,134*	*$229,030*

Source: Grosse et al., 2009; NIS, 2007 (AHRQ, 2009); NSDUH, 2007 (SAMHSA, 2009b)

All costs reported in red italics are in thousands.

Table 3.5. Hospitalization: Hepatitis B (Partial Attribution)

		Drug-Induced Hospital Admissions Hepatitis B				Adjusted Productivity			Lost Productivity		
		(N)	(Per Day)	(LOS)	(In Care)	MPV (Annual)	HPV (Annual)	TPV (Annual)	MPV (Total)	HPV (Total)	TPV (Total)
Males											
15–19		9	0.02	4.82	0	$6,333	$4,659	$10,992	*$1*	*$1*	*$1*
20–24		64	0.18	4.29	1	$23,600	$6,213	$29,813	*$18*	*$5*	*$22*
25–29		191	0.52	3.71	2	$45,940	$9,058	$54,997	*$89*	*$18*	*$107*
30–34		236	0.65	4.32	3	$56,933	$11,159	$68,092	*$159*	*$31*	*$190*
35–39		305	0.84	4.56	4	$62,887	$11,810	$74,696	*$240*	*$45*	*$285*
40–44		325	0.89	4.23	4	$64,475	$11,538	$76,012	*$243*	*$44*	*$287*
45–49		262	0.72	5.79	4	$64,553	$11,512	$76,065	*$268*	*$48*	*$316*
50–54		295	0.81	5.12	4	$63,289	$10,254	$73,545	*$262*	*$42*	*$304*
55–59		166	0.45	5.46	2	$51,913	$11,352	$63,264	*$129*	*$28*	*$157*
60–64		149	0.41	5.32	2	$39,271	$11,863	$51,132	*$85*	*$26*	*$111*
65–69		102	0.28	5.56	2	$15,789	$12,917	$28,706	*$25*	*$20*	*$45*
70–74		30	0.08	10.91	1	$9,757	$13,291	$23,048	*$9*	*$12*	*$20*
75–79		34	0.09	5.43	1	$5,478	$12,588	$18,067	*$3*	*$6*	*$9*
80 +		38	0.10	9.01	1	$3,853	$9,810	$13,663	*$4*	*$9*	*$13*
All		2,206	6.04	4.97	30	$42,889	$10,143	$53,031	*$1,288*	*$305*	*$1,592*
Attribution	0.20								*$258*	*$61*	*$318*
Females											
15–19		9	0.03	6.19	0	$5,057	$7,598	$12,655	*$1*	*$1*	*$2*
20–24		42	0.12	3.74	0	$16,835	$12,801	$29,636	*$7*	*$6*	*$13*
25–29		150	0.41	5.11	2	$28,336	$18,827	$47,163	*$59*	*$39*	*$99*
30–34		158	0.43	4.66	2	$29,707	$22,337	$52,045	*$60*	*$45*	*$105*
35–39		173	0.47	4.65	2	$33,543	$22,150	$55,694	*$74*	*$49*	*$123*
40–44		149	0.41	4.83	2	$35,955	$20,588	$56,543	*$71*	*$41*	*$112*
45–49		158	0.43	4.99	2	$37,045	$17,911	$54,956	*$80*	*$39*	*$119*
50–54		176	0.48	5.18	2	$36,861	$16,370	$53,230	*$92*	*$41*	*$133*
55–59		128	0.35	7.97	3	$30,497	$17,036	$47,534	*$85*	*$48*	*$133*
60–64		60	0.16	7.48	1	$21,322	$17,702	$39,024	*$26*	*$22*	*$48*
65–69		47	0.13	5.35	1	$6,528	$18,408	$24,936	*$4*	*$13*	*$17*
70–74		68	0.19	5.15	1	$2,919	$17,550	$20,469	*$3*	*$17*	*$20*
75–79		55	0.15	5.94	1	$1,271	$16,510	$17,781	*$1*	*$15*	*$16*
80 +		31	0.09	8.01	1	$646	$12,862	$13,507	*$0*	*$9*	*$9*
All		1,405	3.85	5.40	21	23,642	17,153	40,795	*$491*	*$357*	*$848*
Attribution	0.21								*$103*	*$75*	*$178*
Total		3,610	10		51				*$1,779*	*$661*	*$2,440*
Attribution									*$361*	*$136*	*$497*

Source: Grosse et al., 2009; NIS, 2007 (AHRQ, 2009); NSDUH, 2007 (SAMHSA, 2009b)

All costs reported in red italics are in thousands.

Table 3.6. Hospitalization: Hepatitis C (Partial Attribution)

		Drug-Induced Hospital Admissions Hepatitis C				Adjusted Productivity			Lost Productivity		
		(N)	(Per Day)	(LOS)	(In Care)	MPV (Annual)	HPV (Annual)	TPV (Annual)	MPV (Total)	HPV (Total)	TPV (Total)
Males											
15–19		28	0.08	4.43	0	$6,333	$4,659	$10,992	*$2*	*$2*	*$4*
20–24		57	0.16	3.52	1	$23,600	$6,213	$29,813	*$13*	*$3*	*$16*
25–29		118	0.32	2.67	1	$45,940	$9,058	$54,997	*$40*	*$8*	*$48*
30–34		272	0.74	4.34	3	$56,933	$11,159	$68,092	*$184*	*$36*	*$220*
35–39		205	0.56	4.47	3	$62,887	$11,810	$74,696	*$158*	*$30*	*$187*
40–44		582	1.59	4.62	7	$64,475	$11,538	$76,012	*$475*	*$85*	*$560*
45–49		1320	3.62	4.40	16	$64,553	$11,512	$76,065	*$1,027*	*$183*	*$1,210*
50–54		2125	5.82	5.36	31	$63,289	$10,254	$73,545	*$1,974*	*$320*	*$2,293*
55–59		1503	4.12	5.97	25	$51,913	$11,352	$63,264	*$1,276*	*$279*	*$1,555*
60–64		624	1.71	6.00	10	$39,271	$11,863	$51,132	*$403*	*$122*	*$524*
65–69		248	0.68	4.32	3	$15,789	$12,917	$28,706	*$46*	*$38*	*$84*
70–74		139	0.38	5.62	2	$9,757	$13,291	$23,048	*$21*	*$28*	*$49*
75–79		121	0.33	6.08	2	$5,478	$12,588	$18,067	*$11*	*$25*	*$36*
80 +		67	0.18	6.18	1	$3,853	$9,810	$13,663	*$4*	*$11*	*$15*
All		7,408	20.30	5.17	105	$42,889	$10,143	$53,031	*$4,504*	*$1,065*	*$5,569*
Attribution	0.17								*$766*	*$181*	*$947*
Females											
15–19		37	0.10	2.27	0	$5,057	$7,598	$12,655	*$1*	*$2*	*$3*
20–24		88	0.24	4.49	1	$16,835	$12,801	$29,636	*$18*	*$14*	*$32*
25–29		87	0.24	4.20	1	$28,336	$18,827	$47,163	*$28*	*$19*	*$47*
30–34		184	0.50	3.99	2	$29,707	$22,337	$52,045	*$60*	*$45*	*$104*
35–39		248	0.68	4.52	3	$33,543	$22,150	$55,694	*$103*	*$68*	*$171*
40–44		433	1.19	4.95	6	$35,955	$20,588	$56,543	*$211*	*$121*	*$332*
45–49		592	1.62	5.07	8	$37,045	$17,911	$54,956	*$304*	*$147*	*$452*
50–54		890	2.44	6.37	16	$36,861	$16,370	$53,230	*$573*	*$254*	*$827*
55–59		736	2.02	5.10	10	$30,497	$17,036	$47,534	*$313*	*$175*	*$488*
60–64		323	0.89	5.27	5	$21,322	$17,702	$39,024	*$100*	*$83*	*$182*
65–69		260	0.71	5.91	4	$6,528	$18,408	$24,936	*$27*	*$77*	*$105*
70–74		191	0.52	5.03	3	$2,919	$17,550	$20,469	*$8*	*$46*	*$54*
75–79		172	0.47	5.26	2	$1,271	$16,510	$17,781	*$3*	*$41*	*$44*
80 +		158	0.43	5.67	2	$646	$12,862	$13,507	*$2*	*$32*	*$33*
All		4,399	12.05	5.29	64	23,642	17,153	40,795	*$1,507*	*$1,093*	*$2,600*
Attribution	0.15								*$226*	*$164*	*$390*
Total		11,807	32		169				*$6,011*	*$2,158*	*$8,169*
Attribution									*$992*	*$345*	*$1,337*

Source: Grosse et al., 2009; NIS, 2007 (AHRQ, 2009); NSDUH, 2007 (SAMHSA, 2009b)

All costs reported in red italics are in thousands.

Table 3.7. Hospitalization: HIV (Partial Attribution)

		Drug-Induced Hospital Admissions HIV				Adjusted Productivity			Lost Productivity		
		(N)	(Per Day)	(LOS)	(In Care)	MPV (Annual)	HPV (Annual)	TPV (Annual)	MPV (Total)	HPV (Total)	TPV (Total)
Males											
15–19		305	0.84	7.80	7	$6,333	$4,659	$10,992	*$41*	*$30*	*$72*
20–24		953	2.61	10.33	27	$23,600	$6,213	$29,813	*$636*	*$168*	*$804*
25–29		2,265	6.21	8.67	54	$45,940	$9,058	$54,997	*$2,471*	*$487*	*$2,958*
30–34		5,578	15.28	9.43	144	$56,933	$11,159	$68,092	*$8,203*	*$1,608*	*$9,811*
35–39		6,640	18.19	9.53	173	$62,887	$11,810	$74,696	*$10,900*	*$2,047*	*$12,947*
40–44		8,988	24.63	9.03	222	$64,475	$11,538	$76,012	*$14,338*	*$2,566*	*$16,904*
45–49		8,390	22.99	9.38	216	$64,553	$11,512	$76,065	*$13,916*	*$2,482*	*$16,398*
50–54		6,955	19.05	8.95	170	$63,289	$10,254	$73,545	*$10,790*	*$1,748*	*$12,538*
55–59		3,022	8.28	9.34	77	$51,913	$11,352	$63,264	*$4,013*	*$877*	*$4,890*
60–64		1,554	4.26	10.64	45	$39,271	$11,863	$51,132	*$1,779*	*$537*	*$2,316*
65–69		601	1.65	9.17	15	$15,789	$12,917	$28,706	*$238*	*$195*	*$433*
70–74		398	1.09	10.40	11	$9,757	$13,291	$23,048	*$111*	*$151*	*$261*
75–79		122	0.33	13.03	4	$5,478	$12,588	$18,067	*$24*	*$55*	*$79*
80 +		22	0.06	12.35	1	$3,853	$9,810	$13,663	*$3*	*$7*	*$10*
All		45,792	125.46	9.30	1,167	$42,889	$10,143	$53,031	*$50,062*	*$11,839*	*$61,901*
Attribution	0.17								*$8,511*	*$2,013*	*$10,523*
Females											
15–19		409	1.12	12.87	14	$5,057	$7,598	$12,655	*$73*	*$109*	*$182*
20–24		554	1.52	8.39	13	$16,835	$12,801	$29,636	*$214*	*$163*	*$377*
25–29		1,384	3.79	9.18	35	$28,336	$18,827	$47,163	*$986*	*$655*	*$1,642*
30–34		3,475	9.52	8.73	83	$29,707	$22,337	$52,045	*$2,469*	*$1,857*	*$4,326*
35–39		3,491	9.56	8.72	83	$33,543	$22,150	$55,694	*$2,796*	*$1,847*	*$4,643*
40–44		4,382	12.00	8.34	100	$35,955	$20,588	$56,543	*$3,602*	*$2,062*	*$5,664*
45–49		3,965	10.86	9.51	103	$37,045	$17,911	$54,956	*$3,828*	*$1,851*	*$5,679*
50–54		2,806	7.69	9.72	75	$36,861	$16,370	$53,230	*$2,754*	*$1,223*	*$3,977*
55–59		1,220	3.34	8.93	30	$30,497	$17,036	$47,534	*$911*	*$509*	*$1,419*
60–64		473	1.30	11.34	15	$21,322	$17,702	$39,024	*$313*	*$260*	*$573*
65–69		213	0.58	10.20	6	$6,528	$18,408	$24,936	*$39*	*$110*	*$148*
70–74		162	0.44	10.70	5	$2,919	$17,550	$20,469	*$14*	*$83*	*$97*
75–79		31	0.08	6.59	1	$1,271	$16,510	$17,781	*$1*	*$9*	*$10*
80 +		10	0.03	12.83	0	$646	$12,862	$13,507	*$0*	*$5*	*$5*
All		22,573	61.84	9.10	563	23,642	17,153	40,795	*$13,306*	*$9,654*	*$22,960*
Attribution	0.24								*$3,194*	*$2,317*	*$5,510*
Total		68,365	187		1,730				*$63,369*	*$21,493*	*$84,861*
Attribution									*$11,704*	*$4,330*	*$16,034*

Source: Grosse et al., 2009; NIS, 2007 (AHRQ, 2009); NSDUH, 2007 (SAMHSA, 2009b)

All costs reported in red italics are in thousands.

Table 3.8. Hospitalization: Tuberculosis (Partial Attribution)

		Drug-Induced Hospital Admissions Tuberculosis				Adjusted Productivity			Lost Productivity		
		(N)	(Per Day)	(LOS)	(In Care)	MPV (Annual)	HPV (Annual)	TPV (Annual)	MPV (Total)	HPV (Total)	TPV (Total)
Males											
15–19		193	0.53	19.84	10	$6,333	$4,659	$10,992	*$66*	*$49*	*$115*
20–24		383	1.05	17.23	18	$23,600	$6,213	$29,813	*$427*	*$112*	*$540*
25–29		342	0.94	15.93	15	$45,940	$9,058	$54,997	*$685*	*$135*	*$820*
30–34		454	1.24	14.82	18	$56,933	$11,159	$68,092	*$1,049*	*$206*	*$1,255*
35–39		435	1.19	16.87	20	$62,887	$11,810	$74,696	*$1,265*	*$238*	*$1,503*
40–44		443	1.21	17.97	22	$64,475	$11,538	$76,012	*$1,406*	*$252*	*$1,658*
45–49		633	1.73	21.16	37	$64,553	$11,512	$76,065	*$2,368*	*$422*	*$2,790*
50–54		519	1.42	14.18	20	$63,289	$10,254	$73,545	*$1,275*	*$207*	*$1,482*
55–59		408	1.12	19.70	22	$51,913	$11,352	$63,264	*$1,143*	*$250*	*$1,393*
60–64		345	0.94	18.76	18	$39,271	$11,863	$51,132	*$696*	*$210*	*$906*
65–69		305	0.84	14.82	12	$15,789	$12,917	$28,706	*$196*	*$160*	*$356*
70–74		209	0.57	15.42	9	$9,757	$13,291	$23,048	*$86*	*$117*	*$203*
75–79		256	0.70	17.77	12	$5,478	$12,588	$18,067	*$68*	*$157*	*$225*
80 +		278	0.76	18.39	14	$3,853	$9,810	$13,663	*$54*	*$137*	*$191*
All		5,202	14.25	17.41	248	$42,889	$10,143	$53,031	*$10,640*	*$2,516*	*$13,156*
Attribution	0.09								*$958*	*$226*	*$1,184*
Females											
15–19		78	0.21	14.55	3	$5,057	$7,598	$12,655	*$16*	*$24*	*$39*
20–24		198	0.54	21.24	12	$16,835	$12,801	$29,636	*$194*	*$147*	*$341*
25–29		349	0.96	12.05	12	$28,336	$18,827	$47,163	*$326*	*$217*	*$543*
30–34		237	0.65	11.43	7	$29,707	$22,337	$52,045	*$220*	*$165*	*$386*
35–39		199	0.55	10.00	5	$33,543	$22,150	$55,694	*$183*	*$121*	*$304*
40–44		188	0.51	13.59	7	$35,955	$20,588	$56,543	*$251*	*$144*	*$395*
45–49		186	0.51	16.46	8	$37,045	$17,911	$54,956	*$310*	*$150*	*$460*
50–54		220	0.60	11.83	7	$36,861	$16,370	$53,230	*$263*	*$117*	*$379*
55–59		133	0.37	11.89	4	$30,497	$17,036	$47,534	*$133*	*$74*	*$207*
60–64		189	0.52	13.89	7	$21,322	$17,702	$39,024	*$154*	*$128*	*$281*
65–69		176	0.48	13.27	6	$6,528	$18,408	$24,936	*$42*	*$118*	*$160*
70–74		199	0.55	13.58	7	$2,919	$17,550	$20,469	*$22*	*$130*	*$152*
75–79		203	0.56	11.64	6	$1,271	$16,510	$17,781	*$8*	*$107*	*$115*
80 +		285	0.78	15.80	12	$646	$12,862	$13,507	*$8*	*$159*	*$167*
All		2,840	7.78	13.58	106	23,642	17,153	40,795	*$2,498*	*$1,813*	*$4,311*
Attribution	0.04								*$100*	*$73*	*$172*
Total		8,042	22		354				*$13,138*	*$4,329*	*$17,467*
Attribution									*$1,058*	*$299*	*$1,357*

Source: Grosse et al., 2009; NIS, 2007 (AHRQ, 2009); NSDUH, 2007 (SAMHSA, 2009b)

All costs reported in red italics are in thousands.

Table 3.9. Hospitalization: Non-Drug-Induced Primary Diagnosis (Partial Attribution)

		Drug-Related Hospital Admissions (Non Drug-Induced Primary Diagnosis)				Adjusted Productivity			Lost Productivity		
		(N)	(Per Day)	(LOS)	(In Care)	MPV (Annual)	HPV (Annual)	TPV (Annual)	MPV (Total)	HPV (Total)	TPV (Total)
Males											
15–19		274,457	751.94	4.76	3,576	$6,333	$4,659	$10,992	*$22,647*	*$16,663*	*$39,309*
20–24		313,869	859.92	5.07	4,364	$23,600	$6,213	$29,813	*$102,982*	*$27,109*	*$130,091*
25–29		344,421	943.62	5.02	4,737	$45,940	$9,058	$54,997	*$217,601*	*$42,903*	*$260,504*
30–34		411,052	1126.17	4.80	5,402	$56,933	$11,159	$68,092	*$307,557*	*$60,280*	*$367,837*
35–39		515,495	1412.32	4.74	6,693	$62,887	$11,810	$74,696	*$420,884*	*$79,044*	*$499,921*
40–44		718,622	1968.83	4.80	9,447	$64,475	$11,538	$76,012	*$609,122*	*$109,003*	*$718,116*
45–49		943,389	2584.63	4.95	12,782	$64,553	$11,512	$76,065	*$825,135*	*$147,148*	*$972,283*
50–54		1,141,013	3126.06	5.08	15,866	$63,289	$10,254	$73,545	*$1,004,137*	*$162,692*	*$1,166,845*
55–59		1,157,425	3171.03	5.16	16,365	$51,913	$11,352	$63,264	*$849,576*	*$185,773*	*$1,035,349*
60–64		1,179,871	3232.52	5.23	16,906	$39,271	$11,863	$51,132	*$663,899*	*$200,547*	*$864,429*
65–69		1,212,214	3321.13	5.30	17,605	$15,789	$12,917	$28,706	*$277,955*	*$227,397*	*$505,369*
70–74		1,179,365	3231.14	5.45	17,613	$9,757	$13,291	$23,048	*$171,842*	*$234,095*	*$405,938*
75–79		1,217,315	3335.11	5.67	18,907	$5,478	$12,588	$18,067	*$103,581*	*$238,012*	*$341,594*
80 +		2,056,507	5634.27	5.77	32,486	$3,853	$9,810	$13,663	*$125,163*	*$318,679*	*$443,841*
All		12,665,015	34698.67	5.27	182,749	$42,889	$10,143	$53,031	*$7,837,881*	*$1,853,556*	*$9,691,415*
Attribution	0.003								*$23,514*	*$5,561*	*$29,074*
Females											
15–19		796,093	2181.08	3.22	7,027	$5,057	$7,598	$12,655	*$35,540*	*$53,392*	*$88,932*
20–24		1,562,667	4281.28	2.87	12,296	$16,835	$12,801	$29,636	*$207,002*	*$157,403*	*$364,405*
25–29		1,760,648	4823.69	2.94	14,190	$28,336	$18,827	$47,163	*$402,100*	*$267,166*	*$669,266*
30–34		1,604,979	4397.20	3.13	13,755	$29,707	$22,337	$52,045	*$408,615*	*$307,241*	*$715,870*
35–39		1,232,244	3376.01	3.47	11,722	$33,543	$22,150	$55,694	*$393,200*	*$259,650*	*$652,850*
40–44		983,810	2695.37	3.99	10,742	$35,955	$20,588	$56,543	*$386,214*	*$221,144*	*$607,358*
45–49		1,064,691	2916.96	4.38	12,770	$37,045	$17,911	$54,956	*$473,087*	*$228,735*	*$701,810*
50–54		1,131,934	3101.19	4.69	14,544	$36,861	$16,370	$53,230	*$536,116*	*$238,084*	*$774,200*
55–59		1,140,960	3125.92	4.99	15,611	$30,497	$17,036	$47,534	*$476,084*	*$265,946*	*$742,030*
60–64		1,185,953	3249.19	5.21	16,925	$21,322	$17,702	$39,024	*$360,886*	*$299,614*	*$660,500*
65–69		1,248,287	3419.96	5.25	17,961	$6,528	$18,408	$24,936	*$117,252*	*$330,633*	*$447,885*
70–74		1,311,462	3593.05	5.41	19,444	$2,919	$17,550	$20,469	*$56,758*	*$341,249*	*$398,008*
75–79		1,487,419	4075.12	5.60	22,814	$1,271	$16,510	$17,781	*$28,996*	*$376,656*	*$405,652*
80 +		3,475,700	9522.47	5.64	53,694	$646	$12,862	$13,507	*$34,687*	*$690,617*	*$725,249*
All		19,986,847	54758.48	4.45	243,497	23,642	17,153	40,795	*$5,756,755*	*$4,176,622*	*$9,933,364*
Attribution	0.001								*$5,757*	*$4,177*	*$9,933*
Total		32,651,862	89,457		426,246				*$13,594,636*	*$6,030,178*	*$19,624,779*
Attribution									*$29,270*	*$9,737*	*$39,008*

Source: Grosse et al., 2009; NIS, 2007 (AHRQ, 2009); NSDUH, 2007 (SAMHSA, 2009b)

All costs reported in red italics are in thousands.

Table 3.10. Incarceration

	Incarcerated Populations							Adjusted Productivity			Lost Productivity		
	Jails		State Prisons		Federal Prisons		Total	MPV	HPV	TPV	MPV	HPV	TPV
	(Prop.)	(n)	(Prop.)	(n)	(Prop.)	(n)	(n)	(Annual)	(Annual)	(Annual)	(Total)	(Total)	(Total)
Males													
15–19	0.07	18,868	0.02	8,897	0.00	0	27,766	$6,333	$4,659	$10,992	*$175,834*	*$129,372*	*$305,205*
20–24	0.21	54,578	0.15	68,999	0.11	12,492	136,069	$23,600	$6,213	$29,813	*$3,211,242*	*$845,347*	*$4,056,589*
25–29	0.15	38,316	0.17	77,819	0.19	22,052	138,187	$45,940	$9,058	$54,997	*$6,348,272*	*$1,251,646*	*$7,599,918*
30–34	0.14	36,374	0.16	70,538	0.20	23,682	130,594	$56,933	$11,159	$68,092	*$7,435,115*	*$1,457,246*	*$8,892,362*
35–39	0.14	35,712	0.15	66,371	0.14	16,809	118,892	$62,887	$11,810	$74,696	*$7,476,687*	*$1,404,149*	*$8,880,716*
40–44	0.08	19,903	0.14	61,066	0.12	14,351	95,320	$64,475	$11,538	$76,012	*$6,145,813*	*$1,099,803*	*$7,245,521*
45–49	0.05	13,786	0.08	36,381	0.10	11,727	61,894	$64,553	$11,512	$76,065	*$3,995,428*	*$712,514*	*$4,707,942*
50–54	0.01	3,026	0.03	14,224	0.05	6,439	23,689	$63,289	$10,254	$73,545	*$1,499,268*	*$242,915*	*$1,742,207*
55–59	0.00	742	0.01	5,329	0.01	1,119	7,190	$51,913	$11,352	$63,264	*$373,259*	*$81,619*	*$454,878*
60–64	0.00	383	0.00	1,093	0.01	1,071	2,547	$39,271	$11,863	$51,132	*$100,018*	*$30,213*	*$130,229*
65–69	0.00	0	0.00	709	0.00	282	991	$15,789	$12,917	$28,706	*$15,652*	*$12,805*	*$28,457*
70–74	0.00	0	0.00	0	0.00	191	191	$9,757	$13,291	$23,048	*$1,867*	*$2,543*	*$4,409*
75–79	0.00	0	0.00	0	0.00	0	0	$5,478	$12,588	$18,067	*$0*	*$0*	*$0*
80 +	0.00	0	0.00	0	0.00	0	0	$3,853	$9,810	$13,663	*$0*	*$0*	*$0*
All	0.86	221,688	0.92	411,427	0.93	110,215	743,330	$42,889	$10,143	$53,031	*$36,778,454*	*$7,270,171*	*$44,048,432*
Females													
15–19	0.00	970	0.00	477	0.00	14	1,460	$5,057	$7,598	$12,655	*$7,386*	*$11,096*	*$18,482*
20–24	0.02	5,673	0.01	4,396	0.01	764	10,833	$16,835	$12,801	$29,636	*$182,373*	*$138,675*	*$321,048*
25–29	0.02	5,806	0.01	5,764	0.01	1,419	12,989	$28,336	$18,827	$47,163	*$368,058*	*$244,548*	*$612,606*
30–34	0.03	7,375	0.01	6,165	0.01	1,686	15,226	$29,707	$22,337	$52,045	*$452,331*	*$340,111*	*$792,457*
35–39	0.03	7,521	0.02	8,974	0.01	1,271	17,767	$33,543	$22,150	$55,694	*$595,951*	*$393,537*	*$989,489*
40–44	0.03	6,507	0.01	6,636	0.01	1,504	14,648	$35,955	$20,588	$56,543	*$526,650*	*$301,557*	*$828,208*
45–49	0.01	2,115	0.01	3,339	0.01	987	6,442	$37,045	$17,911	$54,956	*$238,644*	*$115,383*	*$354,020*
50–54	0.00	979	0.00	979	0.01	610	2,567	$36,861	$16,370	$53,230	*$94,617*	*$42,019*	*$136,636*
55–59	0.00	0	0.00	235	0.00	66	301	$30,497	$17,036	$47,534	*$9,191*	*$5,134*	*$14,326*
60–64	0.00	0	0.00	55	0.00	105	160	$21,322	$17,702	$39,024	*$3,412*	*$2,833*	*$6,246*
65–69	0.00	0	0.00	0	0.00	0	0	$6,528	$18,408	$24,936	*$0*	*$0*	*$0*
70–74	0.00	0	0.00	0	0.00	0	0	$2,919	$17,550	$20,469	*$0*	*$0*	*$0*
75–79	0.00	0	0.00	0	0.00	0	0	$1,271	$16,510	$17,781	*$0*	*$0*	*$0*
80+	0.00	0	0.00	0	0.00	0	0	$646	$12,862	$13,507	*$0*	*$0*	*$0*
All	0.14	36,945	0.08	37,021	0.07	8,427	82,393	23641.99354	17152.66191	40794.60225	*$2,478,614*	*$1,594,894*	*$4,073,517*
Total		780,581		1,321,731		196,804					*$39,257,067*	*$8,865,065*	*$48,121,949*
Attribution		0.33		0.34		0.60							
Adjusted		258,632		448,447		118,642							

Source: Grosse et al., 2009; NSDUH, 2007 (SAMHSA, 2009b); SIFCF, 2004 (BJS, 2007); SILJ, 2002 (BJS, 2006); SISCF, 2004 (BJS, 2007)

All costs reported in red italics are in thousands.

Premature Mortality

Past work on premature mortality has relied heavily upon what we have called an incidence-based approach. Within this context, all present and future productivity losses associated with a drug-induced death are realized during the period in which the death occurs. When assessed simultaneously with other components that are measured using a prevalence-based approach, a distorted picture emerges. This is because the prevalence-based components realize only present costs for the same period.

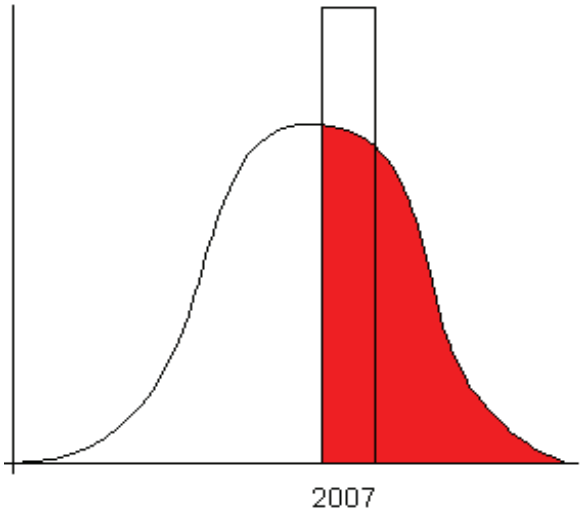
Lost productivity due to premature mortality remains a principal component of all costs that drug use imposes on American society. But it is not possible to assess its relative contribution unless all measures are defined consistently from either an incidence-based or prevalence-based perspective.

We therefore depart from the tradition of using an incidence-based approach and its measure (the present discounted value associated with drug-induced deaths that have occurred during the current period) in favor of a prevalence-based approach and its measure (the present value of drug-induced deaths that have occurred during the current and all preceding periods).

To see how this is accomplished, we refer the reader to Figure 3.2, in which the productivity of an individual is depicted over time. Productivity typically begins at a relatively low level, reaches a peak during the middle and latter years, and then drops off sharply following retirement. Productivity itself may include several components, and as noted above, it is not uncommon to differentiate between MPV and HPV.

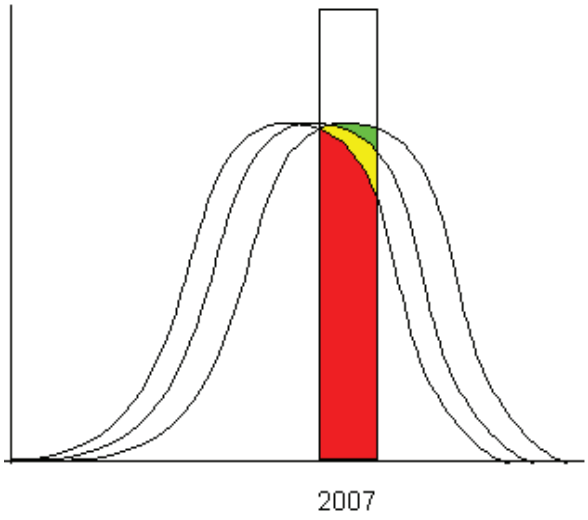
In any case, when a person dies a drug-induced death, that portion of their productivity which lies to the right of their time of death is lost. And in an incidence-based model, all of that productivity is taken as a 2007 loss.

Figure 3.2. Incidence-Based



In a prevalence-based model, only the productivity that would have occurred during the 2007 period is taken as a loss. But the prevalence-based approach then also requires that we include current period losses associated with individuals who died drug-induced deaths during the preceding period, the period before that, and so on, as depicted in Figure 3.3.

Figure 3.3. Prevalence-Based



Approaching the problem in this manner requires that we go back far enough in time so that people who died early in life are represented in our analysis. We therefore make use

of NCHS MCODPUD covering 1968-2007 in our analysis (NCHS, 1980-2009). For any given year, cases attributable to drug use are identified and allowed to age into the current period following a survival function derived from all deaths occurring during that same year. Sex- and age-specific productivity factors are then attributed to these individuals based upon research findings provided recently by Grosse et al. (2009).

The exercise is complicated by the fact that the coding scheme for underlying cause of death and contributing factors changes three times over the period 1968-2007, with the ICD-8 covering the years 1968-1978, the ICD-9 covering the years 1979-1998, and the ICD-10 covering the years 1999-2007. This means that we must adopt some set of rules for establishing comparability across the three reporting systems, which sometimes differ in significant ways.

The NCHS data include codes for the underlying cause of death and for other factors that may have contributed to the death (these are called record-axis codes). Fourteen record-axis codes are stored in the ICD-8 files and 20 in the ICD-9 and ICD-10 files.

When using ICD-8 and ICD-9 classification systems, a distinction is made between E-codes and Nature of Injury codes (N-codes). Because E-codes and N-codes make use of the same numerical sequences (which overlap but do not indicate the same cause of death), they are differentiated in the record-axes by the presence of a 0 or 1 in the fifth character position.

As a rule, the E-code is stored as the underlying cause in cases involving what we would consider to be a drug-induced death. But in cases where the drug itself is unknown (or not given), the examination of record-axis codes sometimes provides more definitive information. The record-axis codes have relevance as well to the identification of drug use as a contributing factor in cases where the underlying cause of death does not itself appear to involve drugs (many of these are diseases of the circulatory system).

The ICD-10 involved significant changes relative to the ICD-9, and the overlap between numerical sequences for E-codes and N-codes disappeared. A much more refined taxonomy for identifying drug-induced deaths emerged in this revision as well. But the general practice of identifying an underlying cause of death as well as its contributing factors (as record-axis codes) remained.

We seek to maintain consistency with operationalizations adopted in preceding chapters. Thus drug-induced deaths involve the use of Schedule I drugs (principally marijuana and heroin) and Schedule II-IV drugs (cocaine and methamphetamine as well as prescription pain relievers, stimulants, tranquilizers, and sedatives). As noted above, this operational definition allows us to include deaths attributable to both illicit drugs (such as heroin) and licit drugs (other opiates in this example) in our analysis. Since many deaths are related to prescribed substances, it is important to characterize drug-induced deaths in this manner.

Within this context the following conventions apply:

- If the underlying cause of death is newborn withdrawal, drug psychosis, drug dependence, or nondependent drug use involving a drug that is an element of the set of drugs defined above, then the death is treated as drug-induced.
- If the underlying cause of death is an unintentional overdose, intentional overdose, or overdose of undetermined intent involving a drug that is an element of the set of drugs defined above, then the death is treated as drug-induced.

- If the underlying cause of death is newborn withdrawal, drug psychosis, drug dependence, nondependent drug use, unintentional overdose, intentional overdose, overdose of undetermined intent, or assault (by drug), and the drug associated with the underlying cause of death is unknown, but any of the record-axis codes is an element of the set of drugs defined above, then the death is treated as drug-induced.
- If the underlying cause of death does not involve drug use but any of the record-axis codes is an element of the set of drugs defined above, then the death is treated as *drug-related*.[16]

The fact that there is some art involved in this exercise cannot be denied. While it is clear that death attributable to a deliberate overdose of barbiturates is drug-induced, it is less clear that death attributable to a deliberate overdose of "Other Central Nervous System Stimulants with Abuse Potential" is drug- induced as well. Fortunately, the equivalences among ICD-8, ICD-9, and ICD-10 coding schemes are in most cases fairly clear. It is also important to note that using information on age at death to construct a survival function—as we have done here—ignores advances in medicine that might prolong life.

Our findings are presented in Tables 3.11 and 3.12 for males and females, respectively. Information is provided there on the 2007 age distribution of individuals who would otherwise have died during each year depicted on the vertical axis. Total lost productivity and its components (MPV and HPV) appear below in red. The most detailed source of information on the proportion of deaths that are drug-related rather than drug-induced comes from our analysis of ICD-10 data. Here we find that about 20 percent of cases involving drugs are drug-related but not drug-induced (using the conventions adopted above). We have no mechanism at present for making a statistical determination of the role of drug use as a contributing factor in drug-related deaths. In the absence of such information, we assign 10 percent of the 20 percent as drug-induced, yielding an attribution factor of 0.80 + 0.02=0.82. These calculations result in TPV losses of *$10,863,663* for males and *$3,990,096* for females. These losses sum to *$14,853,759*.

There appears to be significant discontinuity between estimates for 1998 and 1999, and these are likely attributable to transition from ICD-9 to ICD-10. Comparability ratios are routinely developed when revisions of the ICD are made, and this is done by cross-coding the same medical records, using alternative versions of the classification scheme—in this case ICD-9 and ICD-10. These have been calculated by Anderson et al. (2001), but they provide no detail on deaths due to illicit drug use (this is a consequence of small sample size). SAMHSA states that 1.20 may be used as a comparability ratio for deaths attributable to drugs (ONDCP, 2001). We have confirmed this independently, using trend data on deaths and on morphine-equivalent grams per capita reported by Simeone and Holland (2006).

16. Drug-related deaths include all events in which the underlying cause of death is not illicit drug use but where some indication of illicit drug use exists among the record axis codes. A case in which the underlying cause of death is coded as a motor vehicle accident and where illicit drug use is indicated in the record axis would be represented here.

Table 3.11. Premature Mortality: Males (Without ICD-10 Correction)

	Age in 2007 (Males)																
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**
1968									20	1	5	112	175	106	55	31	13
1969									15	2	7	160	233	121	55	29	11
1970								15	2	10	258	414	178	102	51	32	12
1971								18	1	11	354	633	262	108	67	33	16
1972								18	0	13	297	565	288	115	74	35	13
1973								14	2	6	198	479	275	117	54	30	12
1974								11	1	5	186	487	313	146	60	30	10
1975							8	2	3	170	679	479	218	89	45	23	9
1976							8	2	6	118	518	460	194	91	48	22	8
1977							6	1	3	66	253	249	128	55	26	15	7
1978							6	2	3	66	218	225	132	55	23	15	6
1979							16	1	2	95	338	461	263	112	67	31	15
1980						13	4	2	83	326	526	351	181	99	54	26	13
1981						14	4	6	56	292	506	399	203	109	54	27	9
1982						9	0	5	69	266	603	516	242	96	62	26	11
1983						11	0	4	53	253	523	520	284	133	65	29	11
1984						9	0	6	55	229	505	591	339	161	63	30	14
1985					7	0	3	55	259	599	803	581	228	115	57	25	9
1986					13	1	6	69	250	625	907	698	306	127	74	27	9
1987					18	4	5	58	207	484	756	685	298	144	60	31	12
1988					5	0	3	69	233	487	872	780	400	187	69	34	11
1989					13	2	9	87	211	479	759	805	399	168	75	35	10
1990				12	3	4	65	172	394	642	732	448	188	92	49	21	7
1991				16	2	7	64	191	408	617	690	537	203	107	54	24	8
1992				11	1	9	67	228	491	760	979	711	301	135	53	29	9
1993				20	8	6	76	264	510	890	1,157	990	392	143	59	30	8
1994				15	3	8	69	252	500	923	1,080	1,015	499	179	69	26	8
1995			13	4	5	82	314	562	932	1,297	1,180	651	115	58	44	15	6
1996			13	4	8	120	306	521	880	1,170	1,183	778	127	54	42	24	7
1997			13	5	8	125	350	559	910	1,295	1,322	874	164	62	48	19	8
1998			15	5	6	147	411	578	936	1,272	1,449	1,002	162	75	58	20	8
1999			14	3	11	225	599	916	1,293	1,929	2,293	1,790	352	144	114	44	13
2000		19	19	3	10	248	712	893	1,220	1,849	2,212	1,866	345	145	115	35	11
2001		27	26	1	17	323	808	945	1,238	1,830	2,275	1,977	420	160	128	46	12
2002		15	15	3	16	380	972	1,105	1,486	2,092	2,579	2,250	569	214	172	50	15
2003		25	25	3	11	395	1,212	1,236	1,546	2,122	2,693	2,500	699	235	191	71	15
2004		22	22	2	17	526	1,302	1,462	1,524	2,025	2,624	2,618	840	265	217	69	18
2005	23	2	15	402	1,180	1,388	1,435	1,768	2,555	2,690	1,901	896	323	101	44	18	15
2006	32	6	21	567	1,752	2,063	2,055	2,440	3,268	3,518	2,769	1,374	422	169	62	23	16
2007	28	4	18	485	1,466	1,725	1,745	2,104	2,912	3,104	2,335	1,135	372	135	53	21	16
	83	118	226	1,560	4,577	7,841	12,639	16,639	24,536	34,627	41,522	34,064	12,031	5,027	2,829	1,200	443
Market Productivity Value (MPV) By Age				$6,333	$23,600	$45,940	$56,933	$62,887	$64,475	$64,553	$63,289	$51,913	$39,271	$15,789	$9,757	$5,478	$3,853
Lost MPV By Age				*$9,877*	*$108,010*	*$360,235*	*$719,559*	*$1,046,360*	*$1,581,946*	*$2,235,272*	*$2,627,890*	*$1,768,365*	*$472,460*	*$79,377*	*$27,600*	*$6,574*	*$1,705*
Lost MPV With Attribution			0.82	*$8,099*	*$88,568*	*$295,392*	*$590,038*	*$858,015*	*$1,297,196*	*$1,832,923*	*$2,154,869*	*$1,450,060*	*$387,417*	*$65,089*	*$22,632*	*$5,391*	*$1,398*
Total Lost MPV			*$9,057,088*														
Household Production Value (HPV) By Age				$4,659	$6,213	$9,058	$11,159	$11,810	$11,538	$11,512	$10,254	$11,352	$11,863	$12,917	$13,291	$12,588	$9,810
Lost HPV By Age				*$7,267*	*$28,433*	*$71,025*	*$141,030*	*$196,510*	*$283,092*	*$398,621*	*$425,777*	*$386,682*	*$142,718*	*$64,939*	*$37,599*	*$15,106*	*$4,342*
Lost HPV With Attribution			0.82	*$5,959*	*$23,315*	*$58,240*	*$115,645*	*$161,138*	*$232,135*	*$326,870*	*$349,137*	*$317,079*	*$117,029*	*$53,250*	*$30,831*	*$12,387*	*$3,560*
Total Lost HPV			*$1,806,575*														
Total Production Value (TPV) By Age				*$17,144*	*$136,443*	*$431,260*	*$860,589*	*$1,242,870*	*$1,865,038*	*$2,633,894*	*$3,053,666*	*$2,155,047*	*$615,178*	*$144,316*	*$65,199*	*$21,680*	*$6,047*
Lost TPV With Attribution			0.82	*$14,058*	*$111,883*	*$353,633*	*$705,683*	*$1,019,154*	*$1,529,331*	*$2,159,793*	*$2,504,006*	*$1,767,138*	*$504,446*	*$118,339*	*$53,463*	*$17,777*	*$4,958*
Total Lost TPV			*$10,863,663*														

Source: Grosse et al., 2009; MCODPUD, 1968-2006 (NCHS, 1980-2009); NSDUH, 2007 (SAMHSA, 2009b)

All costs reported in red italics are in thousands.

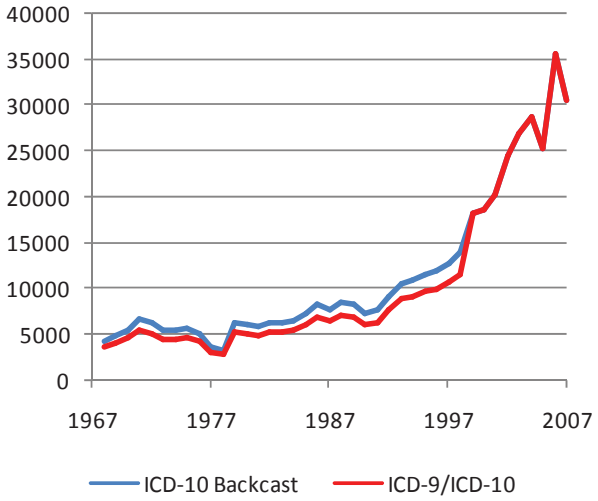
Table 3.12. Premature Mortality: Females (Without ICD-10 Correction)

	Age in 2007 (Females)																
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**
1968									10	1	2	45	70	75	67	56	34
1969									12	0	8	86	108	106	64	59	33
1970								15	2	9	116	171	120	89	79	62	36
1971								25	3	9	149	226	143	93	94	77	42
1972								9	4	19	98	204	181	100	75	63	38
1973								15	2	7	87	204	133	98	65	59	31
1974								9	1	8	101	198	158	88	67	52	31
1975							7	3	4	77	235	196	113	64	81	61	25
1976							6	1	6	79	223	187	116	66	72	50	23
1977							10	2	5	44	172	140	97	62	60	46	22
1978							11	0	3	38	130	155	97	67	53	51	20
1979							23	1	8	74	209	241	212	168	104	84	46
1980						10	4	4	63	194	242	222	166	131	93	74	35
1981						9	5	8	76	154	222	221	148	127	107	74	48
1982						15	1	4	74	167	246	231	186	124	90	79	33
1983						10	4	13	52	157	249	244	182	132	94	76	32
1984						6	1	1	58	135	230	270	185	135	104	68	30
1985					6	2	18	58	140	234	322	220	150	129	73	56	23
1986					10	2	7	71	135	249	345	304	184	129	92	56	29
1987					5	2	3	81	115	243	348	299	189	105	96	63	22
1988					4	2	13	82	128	233	339	338	222	130	77	57	33
1989					10	3	15	84	108	253	341	315	242	143	76	64	21
1990				9	2	15	56	102	197	280	314	236	150	104	89	43	24
1991				10	3	13	58	112	173	286	346	263	180	97	77	57	22
1992				14	2	14	65	91	182	325	380	297	201	114	59	50	23
1993				14	6	16	53	117	189	354	415	367	207	127	74	48	19
1994				11	4	14	57	101	210	350	428	386	236	140	88	51	17
1995			13	0	9	51	119	177	349	452	447	275	82	61	52	30	15
1996			13	4	9	51	119	219	351	481	491	348	101	71	61	34	17
1997			7	7	8	55	98	225	339	494	549	363	125	67	58	39	16
1998			10	6	5	64	120	214	361	564	628	397	145	66	57	39	17
1999			9	4	4	85	188	309	543	871	947	723	170	92	80	45	18
2000		8	8	3	13	97	194	313	520	863	1,059	809	239	92	81	41	19
2001		6	6	3	8	108	242	313	546	947	1,167	906	233	119	104	45	20
2002		22	22	1	9	130	333	386	653	1,053	1,449	1,300	343	159	140	71	24
2003		16	16	5	7	150	384	452	698	1,114	1,527	1,408	417	174	154	73	23
2004		15	15	7	23	161	411	509	725	1,111	1,677	1,604	498	208	184	74	25
2005	11	3	15	125	373	490	638	952	1,423	1,514	1,062	486	211	101	57	36	31
2006	27	3	17	196	532	747	815	1,265	1,891	2,134	1,570	797	280	142	63	39	43
2007	19	3	16	160	453	618	727	1,108	1,657	1,824	1,316	642	246	122	60	37	37
	56	75	165	577	1,502	2,940	4,806	7,451	12,015	17,404	20,185	16,324	7,466	4,419	3,322	2,240	1,095
Market Productivity Value (MPV) By Age				$5,057	$16,835	$28,336	$29,707	$33,543	$35,955	$37,045	$36,861	$30,497	$21,322	$6,528	$2,919	$1,271	$646
Lost MPV By Age				*$2,916*	*$25,283*	*$83,320*	*$142,765*	*$249,917*	*$432,006*	*$644,738*	*$744,050*	*$497,838*	*$159,198*	*$28,845*	*$9,697*	*$2,848*	*$707*
Lost MPV With Attribution			0.82	*$2,391*	*$20,732*	*$68,322*	*$117,067*	*$204,932*	*$354,245*	*$528,685*	*$610,121*	*$408,227*	*$130,542*	*$23,653*	*$7,951*	*$2,335*	*$580*
Total Lost MPV			*$2,479,784*														
Household Production Value (HPV) By Age				$7,598	$12,801	$18,827	$22,337	$22,150	$20,588	$17,911	$16,370	$17,036	$17,702	$18,408	$17,550	$16,510	$12,862
Lost HPV By Age				*$4,381*	*$19,225*	*$55,360*	*$107,346*	*$165,033*	*$247,365*	*$311,728*	*$330,426*	*$278,098*	*$132,169*	*$81,339*	*$58,300*	*$36,989*	*$14,086*
Lost HPV With Attribution			0.82	*$3,593*	*$15,764*	*$45,395*	*$88,024*	*$135,327*	*$202,839*	*$255,617*	*$270,949*	*$228,041*	*$108,379*	*$66,698*	*$47,806*	*$30,331*	*$11,550*
Total Lost HPV			*$1,510,312*														
Total Production Value (TPV) By Age				*$7,297*	*$44,507*	*$138,680*	*$250,111*	*$414,950*	*$679,370*	*$956,466*	*$1,074,476*	*$775,937*	*$291,367*	*$110,184*	*$67,996*	*$39,837*	*$14,793*
Lost TPV With Attribution			0.82	*$5,984*	*$36,496*	*$113,717*	*$205,091*	*$340,259*	*$557,084*	*$784,302*	*$881,070*	*$636,268*	*$238,921*	*$90,351*	*$55,757*	*$32,666*	*$12,130*
Total Lost TPV			*$3,990,096*														

Source: Grosse et al., 2009; MCODPUD, 1968-2006 (NCHS, 1980-2009); NSDUH, 2007 (SAMHSA, 2009b)

All costs reported in red italics are in thousands.

Figure 3.4. ICD-9/ICD-10 Comparability



We therefore use 1.20 as a comparability ratio and recalibrate observations over the period 1968-1998 accordingly. The product of this exercise is depicted in Figure 3.4.

Using these revised numbers, we estimate TPV losses of *$11,710,119* (for males) and *$4,294,889* (for females) attributable to drug-induced premature mortality and realized in CY2007 (Tables 3.13 and 3.14).[17] These losses sum to *$16,005,008*. Detailed material related to these calculations is provided in Appendix B.

We must then consider homicide cases involving illicit drug use. To accomplish this, we use the same data sources as described above but focus only on cases in which the underlying cause of death is death due to assault.[18] Our findings are provided in Tables 3.15 and 3.16. Prior work by Anderson et al. (2001) suggests a comparability ratio between ICD-9 and ICD-10 of about 1.00 for homicide, and so we do not apply a correction here as we did above.

Since only some homicides are related to illicit drug use on the part of the perpetrator, we use the weighted attribution factor for violent crimes that was derived in Chapter 1 of this report (approximately 0.12). Using these numbers, we estimate TPV losses of *$3,089,080* (for males) and *$689,893* (for females) resulting from homicide. These losses sum to *$3,778,973*. Detailed material related to these calculations is provided in Appendix C.

Present discounted value calculations of TPV and MPV at 0 percent, 3 percent, and 5 percent for males and females by age are provided in Appendix D for individuals wishing to make comparisons with other work that uses this approach. These are also made based upon estimates of lifetime earnings provided by Grosse et al. (2009).

17. Data for 2007 deaths were unavailable when this draft was completed, and so we use the mean taken over the preceding 2 years as a proxy measure.

18. To avoid double-counting, we exclude homicide cases in which prior attribution has been made, using the conventions described above for premature mortality.

Table 3.13. Premature Mortality: Males (With ICD-10 Correction)

	Age in 2007 (Males)																
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**
1968									24	1	6	135	210	127	66	37	16
1969									18	2	9	192	279	145	66	35	13
1970								18	2	13	309	497	214	123	62	38	15
1971								21	1	13	424	760	315	129	80	39	20
1972								21	0	16	356	678	345	138	89	42	16
1973								17	2	7	238	575	330	140	65	36	15
1974								13	1	6	224	584	376	175	72	36	12
1975							10	2	3	204	814	574	261	107	54	28	10
1976							10	2	7	141	621	552	232	109	57	26	9
1977							8	1	4	80	304	299	154	66	31	18	8
1978							8	2	4	80	261	270	158	66	28	18	8
1979							19	1	2	113	405	553	316	135	80	37	17
1980						15	4	2	99	392	631	421	217	119	65	31	16
1981						17	4	7	67	351	607	479	244	130	65	32	11
1982						11	0	6	82	320	723	619	290	115	74	31	13
1983						13	0	4	64	304	627	624	341	160	78	35	13
1984						11	0	7	66	275	606	710	406	193	75	35	17
1985					8	0	3	66	310	719	963	698	274	137	68	30	11
1986					16	1	8	83	300	750	1,088	837	367	153	89	32	11
1987					22	4	5	69	249	581	907	822	358	173	72	37	15
1988					6	0	3	83	280	584	1,046	936	480	224	83	41	13
1989					16	2	11	105	253	574	911	966	479	202	90	41	12
1990				14	3	4	78	206	473	771	878	537	226	110	58	25	8
1991				20	2	8	76	229	489	740	828	644	243	129	64	28	10
1992				13	1	11	80	273	589	912	1,175	854	361	162	64	35	10
1993				24	9	7	91	316	612	1,068	1,389	1,188	471	171	71	36	9
1994				17	3	9	82	303	600	1,108	1,296	1,217	599	214	83	31	9
1995			15	5	6	98	377	674	1,118	1,557	1,416	781	138	69	53	18	7
1996			15	5	9	144	367	626	1,056	1,404	1,419	934	152	65	50	28	8
1997			15	6	9	150	420	670	1,092	1,554	1,587	1,049	196	74	58	22	10
1998			18	6	7	176	493	694	1,123	1,526	1,739	1,203	195	90	70	24	10
1999			14	3	11	225	599	916	1,293	1,929	2,293	1,790	352	144	114	44	13
2000		19	19	3	10	248	712	893	1,220	1,849	2,212	1,866	345	145	115	35	11
2001		27	26	1	17	323	808	945	1,238	1,830	2,275	1,977	420	160	128	46	12
2002		15	15	3	16	380	972	1,105	1,486	2,092	2,579	2,250	569	214	172	50	15
2003		25	25	3	11	395	1,212	1,236	1,546	2,122	2,693	2,500	699	235	191	71	15
2004		22	22	2	17	526	1,302	1,462	1,524	2,025	2,624	2,618	840	265	217	69	18
2005	23	2	15	402	1,180	1,388	1,435	1,768	2,555	2,690	1,901	896	323	101	44	18	15
2006	32	6	21	567	1,752	2,063	2,055	2,440	3,268	3,518	2,769	1,374	422	169	62	23	16
2007	28	4	18	485	1,466	1,725	1,745	2,104	2,912	3,104	2,335	1,135	372	135	53	21	16
	83	118	236	1,578	4,596	7,955	12,998	17,393	26,035	37,321	45,490	37,595	13,569	5,720	3,176	1,364	505
Market Productivity Value (MPV) By Age				$6,333	$23,600	$45,940	$56,933	$62,887	$64,475	$64,553	$63,289	$51,913	$39,271	$15,789	$9,757	$5,478	$3,853
Lost MPV By Age				*$9,992*	*$108,472*	*$365,466*	*$740,043*	*$1,093,777*	*$1,678,588*	*$2,409,157*	*$2,879,043*	*$1,951,690*	*$532,847*	*$90,304*	*$30,982*	*$7,475*	*$1,945*
Lost MPV With Attribution			0.82	*$8,193*	*$88,947*	*$299,682*	*$606,835*	*$896,897*	*$1,376,442*	*$1,975,509*	*$2,360,815*	*$1,600,385*	*$436,935*	*$74,050*	*$25,406*	*$6,130*	*$1,595*
Total Lost MPV			*$9,757,821*														
Household Production Value (HPV) By Age				$4,659	$6,213	$9,058	$11,159	$11,810	$11,538	$11,512	$10,254	$11,352	$11,863	$12,917	$13,291	$12,588	$9,810
Lost HPV By Age				*$7,352*	*$28,555*	*$72,056*	*$145,045*	*$205,415*	*$300,386*	*$429,631*	*$466,469*	*$426,768*	*$160,960*	*$73,879*	*$42,206*	*$17,176*	*$4,953*
Lost HPV With Attribution			0.82	*$6,028*	*$23,415*	*$59,086*	*$118,937*	*$168,441*	*$246,317*	*$352,297*	*$382,505*	*$349,950*	*$131,987*	*$60,580*	*$34,609*	*$14,085*	*$4,061*
Total Lost HPV			*$1,952,298*														
Total Production Value (TPV) By Age				*$17,343*	*$137,026*	*$437,523*	*$885,087*	*$1,299,192*	*$1,978,974*	*$2,838,788*	*$3,345,512*	*$2,378,458*	*$693,807*	*$164,183*	*$73,189*	*$24,651*	*$6,898*
Lost TPV With Attribution			0.82	*$14,221*	*$112,362*	*$358,769*	*$725,772*	*$1,065,337*	*$1,622,759*	*$2,327,806*	*$2,743,320*	*$1,950,336*	*$568,922*	*$134,630*	*$60,015*	*$20,214*	*$5,656*
Total Lost TPV			*$11,710,119*														

Source: Grosse et al., 2009; MCODPUD, 1968-2006 (NCHS, 1980-2009); NSDUH, 2007 (SAMHSA, 2009b)

All costs reported in red italics are in thousands.

Table 3.14. Premature Mortality: Females (With ICD-10 Correction)

	Age in 2007 (Females)																
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**
1968									12	1	3	53	84	90	80	67	41
1969									14	0	10	103	129	128	76	71	40
1970								17	2	10	139	205	144	107	95	74	44
1971								29	3	11	179	271	172	111	112	93	50
1972								11	4	23	117	245	217	120	90	76	46
1973								18	2	8	104	245	160	117	78	71	37
1974								11	1	9	122	237	190	105	80	62	37
1975							9	3	4	93	282	235	136	77	97	74	30
1976							7	1	8	95	267	224	139	80	86	60	27
1977							12	2	5	53	207	168	117	74	72	55	26
1978							14	0	3	46	156	186	117	80	64	61	24
1979							27	1	10	89	251	289	254	201	125	101	55
1980						13	5	4	76	233	291	267	199	157	112	89	42
1981						10	6	10	92	185	266	265	177	152	128	88	57
1982						18	1	4	89	201	295	277	223	148	108	95	40
1983						11	5	16	62	189	299	293	218	158	113	91	38
1984						7	1	1	70	163	276	324	221	162	125	82	36
1985					7	2	22	70	168	281	387	265	179	155	88	67	28
1986					12	2	8	85	163	298	414	365	221	155	111	68	35
1987					6	2	3	97	138	292	418	359	227	126	115	76	27
1988					5	2	16	98	154	280	406	405	266	156	93	69	39
1989					12	3	18	101	130	303	409	378	290	172	91	77	26
1990				11	2	18	68	122	236	336	376	284	180	124	107	52	29
1991				12	3	15	70	135	207	343	415	315	216	117	93	68	26
1992				16	2	17	78	109	219	390	456	357	241	136	71	60	27
1993				16	7	20	63	141	227	425	498	440	248	153	89	58	23
1994				13	5	16	68	122	252	420	513	463	284	168	106	61	20
1995			15	0	11	62	143	212	419	542	537	330	99	74	63	36	18
1996			15	5	11	61	143	263	421	578	589	417	121	86	73	41	21
1997			8	8	9	67	118	270	407	593	659	435	150	81	70	47	19
1998			12	7	6	77	144	257	433	676	754	477	174	80	69	47	20
1999			9	4	4	85	188	309	543	871	947	723	170	92	80	45	18
2000		8	8	3	13	97	194	313	520	863	1,059	809	239	92	81	41	19
2001		6	6	3	8	108	242	313	546	947	1,167	906	233	119	104	45	20
2002		22	22	1	9	130	333	386	653	1,053	1,449	1,300	343	159	140	71	24
2003		16	16	5	7	150	384	452	698	1,114	1,527	1,408	417	174	154	73	23
2004		15	15	7	23	161	411	509	725	1,111	1,677	1,604	498	208	184	74	25
2005	11	3	15	125	373	490	638	952	1,423	1,514	1,062	486	211	101	57	36	31
2006	27	3	17	196	532	747	815	1,265	1,891	2,134	1,570	797	280	142	63	39	43
2007	19	3	16	160	453	618	727	1,108	1,657	1,824	1,316	642	246	122	60	37	37
	56	75	173	591	1,518	3,011	4,980	7,819	12,687	18,599	21,868	17,854	8,432	5,061	3,802	2,596	1,267
Market Productivity Value (MPV) By Age				$5,057	$16,835	$28,336	$29,707	$33,543	$35,955	$37,045	$36,861	$30,497	$21,322	$6,528	$2,919	$1,271	$646
Lost MPV By Age				*$2,990*	*$25,554*	*$85,327*	*$147,955*	*$262,277*	*$456,163*	*$688,996*	*$806,063*	*$544,493*	*$179,790*	*$33,035*	*$11,097*	*$3,300*	*$818*
Lost MPV With Attribution			0.82	*$2,452*	*$20,954*	*$69,968*	*$121,323*	*$215,067*	*$374,053*	*$564,977*	*$660,972*	*$446,484*	*$147,428*	*$27,089*	*$9,100*	*$2,706*	*$671*
Total Lost MPV			*$2,663,245*														
Household Production Value (HPV) By Age				$7,598	$12,801	$18,827	$22,337	$22,150	$20,588	$17,911	$16,370	$17,036	$17,702	$18,408	$17,550	$16,510	$12,862
Lost HPV By Age				*$4,493*	*$19,431*	*$56,694*	*$111,248*	*$173,195*	*$261,197*	*$333,126*	*$357,966*	*$304,160*	*$149,265*	*$93,154*	*$66,722*	*$42,868*	*$16,292*
Lost HPV With Attribution			0.82	*$3,684*	*$15,934*	*$46,489*	*$91,224*	*$142,020*	*$214,181*	*$273,163*	*$293,532*	*$249,412*	*$122,397*	*$76,386*	*$54,712*	*$35,152*	*$13,359*
Total Lost HPV			*$1,631,644*														
Total Production Value (TPV) By Age				*$7,483*	*$44,985*	*$142,021*	*$259,203*	*$435,472*	*$717,359*	*$1,022,122*	*$1,164,029*	*$848,653*	*$329,055*	*$126,189*	*$77,819*	*$46,168*	*$17,110*
Lost TPV With Attribution			0.82	*$6,136*	*$36,888*	*$116,457*	*$212,547*	*$357,087*	*$588,235*	*$838,140*	*$954,504*	*$695,896*	*$269,825*	*$103,475*	*$63,812*	*$37,858*	*$14,030*
Total Lost TPV			*$4,294,889*														

Source: Grosse et al., 2009; MCODPUD, 1968-2006 (NCHS, 1980-2009); NSDUH, 2007 (SAMHSA, 2009b)

All costs reported in red italics are in thousands.

Table 3.15. Premature Mortality: Male Homicides

	Age in 2007 (Males)																
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**
1968									161	52	84	628	897	674	417	228	106
1969									185	52	78	713	1,020	739	426	241	113
1970								183	52	123	877	1,352	1,013	655	402	223	100
1971								223	67	113	933	1,617	1,199	748	469	261	108
1972								202	38	131	997	1,784	1,319	789	503	289	118
1973								235	70	145	1,027	1,716	1,377	856	484	267	117
1974								212	65	139	1,136	1,869	1,450	911	529	279	125
1975							260	53	127	1,198	2,065	1,757	1,135	694	431	251	103
1976							218	74	136	1,118	1,900	1,706	1,020	664	415	224	89
1977							252	86	119	1,150	1,958	1,713	1,095	692	404	208	91
1978							228	79	138	1,137	2,160	1,847	1,164	717	412	214	95
1979							231	80	125	1,360	2,394	2,085	1,385	779	430	237	99
1980						268	68	128	1,479	2,876	2,605	1,814	1,088	642	390	209	79
1981						273	76	149	1,378	2,688	2,534	1,872	1,061	635	407	221	83
1982						312	73	108	1,326	2,471	2,461	1,768	1,088	607	344	204	70
1983						253	73	125	1,087	2,240	2,157	1,604	979	607	304	164	68
1984						285	65	133	1,001	2,073	2,141	1,532	1,007	573	318	163	65
1985					275	78	147	1,098	2,159	2,200	1,738	1,189	735	419	228	132	50
1986					353	62	134	1,249	2,494	2,474	1,941	1,308	742	440	244	132	44
1987					301	72	151	1,277	2,371	2,266	1,776	1,262	724	410	227	133	46
1988					350	91	153	1,538	2,506	2,434	1,910	1,294	786	422	206	118	47
1989					363	83	190	1,781	2,611	2,495	2,005	1,330	821	443	241	107	49
1990				370	66	214	2,315	3,190	2,862	2,191	1,625	1,021	566	314	167	99	35
1991				421	67	248	2,622	3,525	2,844	2,308	1,646	1,060	631	341	188	104	38
1992				407	74	276	2,600	3,534	2,650	2,188	1,558	1,038	620	322	172	93	34
1993				446	100	284	2,791	3,612	2,551	2,161	1,577	1,026	629	339	170	89	34
1994				425	71	261	2,832	3,431	2,474	2,045	1,557	1,051	580	320	162	83	34
1995			417	83	274	2,592	3,142	2,299	1,879	1,370	1,026	642	272	169	129	68	21
1996			373	91	207	2,350	2,892	2,100	1,660	1,353	961	606	256	157	121	64	21
1997			381	90	191	2,109	2,816	2,031	1,531	1,249	930	647	239	155	121	60	23
1998			387	80	165	1,844	2,532	1,840	1,325	1,147	914	564	233	136	106	54	20
1999			260	71	121	1,448	2,008	1,567	1,119	949	740	494	193	110	87	52	18
2000		270	270	56	121	1,329	2,175	1,558	1,126	911	769	498	194	110	87	43	19
2001		294	293	55	93	1,341	2,364	1,668	1,142	934	726	535	197	108	86	51	18
2002		281	281	49	94	1,325	2,401	1,735	1,210	967	762	545	234	121	98	45	18
2003		285	284	61	132	1,593	2,751	1,995	1,368	1,020	840	639	226	121	98	50	21
2004		255	254	53	128	1,538	2,558	2,040	1,351	994	815	604	248	142	116	58	21
2005	224	50	106	1,479	2,394	1,844	1,306	874	805	618	414	219	135	66	54	24	13
2006	320	69	163	1,927	2,864	2,223	1,499	1,090	918	785	519	317	179	80	55	31	14
2007	272	59	134	1,703	2,629	2,033	1,402	982	862	701	466	268	157	73	54	27	14
	815	1,564	3,603	7,869	11,433	26,629	45,325	48,088	49,370	54,827	54,724	45,534	28,892	17,300	10,302	5,602	2,281
Market Productivity Value (MPV) By Age				$6,333	$23,600	$45,940	$56,933	$62,887	$64,475	$64,553	$63,289	$51,913	$39,271	$15,789	$9,757	$5,478	$3,853
Lost MPV By Age				*$49,830*	*$269,827*	*$1,223,317*	*$2,580,478*	*$3,024,085*	*$3,183,142*	*$3,539,207*	*$3,463,447*	*$2,363,819*	*$1,134,615*	*$273,137*	*$100,513*	*$30,693*	*$8,789*
Lost MPV With Attribution			0.12	*$5,980*	*$32,379*	*$146,798*	*$309,657*	*$362,890*	*$381,977*	*$424,705*	*$415,614*	*$283,658*	*$136,154*	*$32,776*	*$12,062*	*$3,683*	*$1,055*
Total Lost MPV			*$2,549,388*														
Household Production Value (HPV) By Age				$4,659	$6,213	$9,058	$11,159	$11,810	$11,538	$11,512	$10,254	$11,352	$11,863	$12,917	$13,291	$12,588	$9,810
Lost HPV By Age				*$36,663*	*$71,031*	*$241,193*	*$505,761*	*$567,934*	*$569,628*	*$631,155*	*$561,155*	*$516,887*	*$342,738*	*$223,455*	*$136,926*	*$70,527*	*$22,378*
Lost HPV With Attribution			0.12	*$4,400*	*$8,524*	*$28,943*	*$60,691*	*$68,152*	*$68,355*	*$75,739*	*$67,339*	*$62,026*	*$41,129*	*$26,815*	*$16,431*	*$8,463*	*$2,685*
Total Lost HPV			*$539,692*														
Total Production Value (TPV) By Age				*$86,492*	*$340,858*	*$1,464,510*	*$3,086,239*	*$3,592,020*	*$3,752,771*	*$4,170,362*	*$4,024,602*	*$2,880,706*	*$1,477,354*	*$496,592*	*$237,439*	*$101,220*	*$31,166*
Lost TPV With Attribution			0.12	*$10,379*	*$40,903*	*$175,741*	*$370,349*	*$431,042*	*$450,332*	*$500,443*	*$482,952*	*$345,685*	*$177,282*	*$59,591*	*$28,493*	*$12,146*	*$3,740*
Total Lost TPV			*$3,089,080*														

Source: Grosse et al., 2009; MCODPUD, 1968-2006 (NCHS, 1980-2009); NSDUH, 2007 (SAMHSA, 2009b)

All costs reported in red italics are in thousands.

Table 3.16. Premature Mortality: Female Homicides

	Age in 2007 (Females)																
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**
1968									165	55	46	180	293	210	154	106	51
1969									151	40	63	219	300	233	177	98	51
1970								179	49	77	246	394	296	195	160	109	41
1971								208	61	87	290	396	331	235	183	115	50
1972								172	45	89	336	476	335	253	158	113	49
1973								216	51	93	388	555	390	288	215	132	54
1974								204	55	79	416	570	438	312	201	128	47
1975							192	70	89	449	608	470	338	243	179	112	44
1976							219	56	84	384	591	466	301	215	145	102	41
1977							212	84	99	423	619	487	326	236	162	92	40
1978							206	74	112	420	639	504	334	232	162	90	42
1979							213	69	77	457	705	552	359	245	161	116	37
1980						223	72	109	469	788	656	442	332	199	138	90	33
1981						241	57	87	411	703	612	495	286	198	147	75	38
1982						246	75	88	413	713	628	455	312	208	129	87	33
1983						230	61	69	360	650	633	432	306	209	138	75	38
1984						260	80	117	364	695	624	434	317	210	126	67	34
1985					250	80	85	336	606	667	540	391	244	166	104	70	33
1986					275	63	93	403	696	748	545	397	262	151	105	60	32
1987					278	60	94	374	682	745	606	416	267	172	106	68	31
1988					318	78	105	369	660	796	634	410	267	153	101	70	30
1989					338	88	112	380	621	724	608	429	285	166	103	61	30
1990				315	83	122	450	622	731	690	480	305	196	113	82	53	26
1991				356	65	110	446	731	738	733	517	353	242	137	87	69	33
1992				322	66	139	418	652	722	669	495	358	214	138	65	53	29
1993				331	87	154	476	682	746	717	534	385	230	121	82	51	30
1994				333	78	130	433	606	633	656	577	321	208	125	72	50	25
1995			327	69	115	502	523	596	648	544	399	232	113	67	57	53	28
1996			365	83	114	403	461	496	548	529	353	273	92	69	59	50	23
1997			293	76	80	371	446	449	496	485	366	259	103	70	60	46	25
1998			318	82	112	332	431	457	446	484	389	244	89	57	50	40	22
1999			221	76	76	294	400	375	372	402	314	194	73	53	46	36	21
2000		212	212	50	70	263	366	329	338	408	310	213	77	57	50	36	17
2001		219	219	48	56	231	385	357	357	398	329	209	90	65	57	46	21
2002		226	226	56	64	255	397	332	351	369	317	231	98	55	48	32	16
2003		230	230	50	55	249	462	357	368	372	339	272	109	59	52	37	19
2004		253	252	48	66	288	386	359	336	311	362	275	105	78	69	44	16
2005	152	40	69	210	347	301	273	317	289	229	134	93	59	49	42	35	29
2006	226	65	67	293	407	408	301	362	338	288	224	134	87	51	42	29	35
2007	189	53	68	252	377	355	287	339	313	259	179	113	73	50	42	32	32
	568	1,299	2,868	3,050	3,777	6,474	9,219	12,082	15,094	18,423	17,650	14,035	9,179	6,142	4,321	2,827	1,326
Market Productivity Value (MPV) By Age				$5,057	$16,834	$28,335	$29,707	$33,543	$35,955	$37,045	$36,861	$30,497	$21,322	$6,528	$2,919	$1,271	$646
Lost MPV By Age				*$15,422*	*$63,589*	*$183,450*	*$273,864*	*$405,258*	*$542,714*	*$682,502*	*$650,578*	*$428,029*	*$195,721*	*$40,098*	*$12,612*	*$3,593*	*$856*
Lost MPV With Attribution			0.12	*$1,851*	*$7,631*	*$22,014*	*$32,864*	*$48,631*	*$65,126*	*$81,900*	*$78,069*	*$51,363*	*$23,487*	*$4,812*	*$1,513*	*$431*	*$103*
Total Lost MPV			*$419,794*														
Household Production Value (HPV) By Age				$7,597	$12,801	$18,826	$22,337	$22,150	$20,588	$17,911	$16,369	$17,036	$17,702	$18,408	$17,550	$16,510	$12,862
Lost HPV By Age				*$23,169*	*$48,352*	*$121,889*	*$205,920*	*$267,613*	*$310,756*	*$329,986*	*$288,916*	*$239,102*	*$162,491*	*$113,070*	*$75,829*	*$46,675*	*$17,051*
Lost HPV With Attribution			0.12	*$2,780*	*$5,802*	*$14,627*	*$24,710*	*$32,114*	*$37,291*	*$39,598*	*$34,670*	*$28,692*	*$19,499*	*$13,568*	*$9,099*	*$5,601*	*$2,046*
Total Lost HPV			*$270,098*														
Total Production Value (TPV) By Age				*$38,591*	*$111,941*	*$305,338*	*$479,784*	*$672,871*	*$853,470*	*$1,012,488*	*$939,494*	*$667,131*	*$358,213*	*$153,168*	*$88,441*	*$50,268*	*$17,907*
Lost TPV With Attribution			0.12	*$4,631*	*$13,433*	*$36,641*	*$57,574*	*$80,745*	*$102,416*	*$121,499*	*$112,739*	*$80,056*	*$42,986*	*$18,380*	*$10,613*	*$6,032*	*$2,149*
Total Lost TPV			*$689,893*														

Source: Grosse et al., 2009; MCODPUD, 1968-2006 (NCHS, 1980-2009); NSDUH, 2007 (SAMHSA, 2009b)

All costs reported in red italics are in thousands.

Appendix A.

Refer to Chapter 1

Attribution Factors for Criminal Offenses

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All costs reported in red italics are in thousands.

Table 1.5. Jail Attribution Factors (Sentenced to Jail)

UCR Offense	Indicators								
	Instrumental Offenses				Related Offenses				Drug-Induced
	yes	no	total	prop.	yes	no	total	prop.	prop.
Total	**26,529**	**190,506**	**217,035**	**0.12**	**34,670**	**182,253**	**216,922**	**0.16**	**0.28**
Parameter Adjusted				**0.12**				**0.19**	**0.31**
Murder	117	2,565	2,682	0.04	201	2,481	2,682	0.08	0.12
Forcible rape	235	4,744	4,978	0.05	816	4,163	4,978	0.16	0.21
Robbery	1,331	4,064	5,396	0.25	895	4,501	5,396	0.17	0.41
Aggravated assault	645	20,394	21,039	0.03	2,771	18,269	21,039	0.13	0.16
Other assaults	122	4,386	4,508	0.03	1,090	3,418	4,508	0.24	0.27
Violent Offenses	**2,449**	**36,154**	**38,603**	**0.06**	**5,772**	**32,831**	**38,603**	**0.15**	**0.21**
Parameter Adjusted				**0.06**				**0.01**	**0.08**
Burglary	3,533	8,079	11,612	0.30	1,657	9,955	11,612	0.14	0.45
Larceny-theft	4,018	11,200	15,217	0.26	1,600	13,617	15,217	0.11	0.37
Motor vehicle theft	411	1,487	1,898	0.22	601	1,297	1,898	0.32	0.53
Arson	0	448	448	0.00	24	425	448	0.05	0.05
Forgery and fraud	2,608	6,528	9,136	0.29	570	8,566	9,136	0.06	0.35
Embezzlement	0	226	226	0.00	0	226	226	0.00	0.00
Stolen property	466	3,577	4,043	0.12	469	3,574	4,043	0.12	0.23
Vandalism	29	2,547	2,576	0.01	323	2,253	2,576	0.13	0.14
Property Offenses	**11,065**	**34,092**	**45,156**	**0.25**	**5,244**	**39,912**	**45,156**	**0.12**	**0.36**
Parameter Adjusted				**0.25**				**0.01**	**0.26**
Drug Offenses	**9,324**	**39,432**	**48,756**	**0.19**	**12,697**	**36,059**	**48,756**	**0.26**	**0.45**
Parameter Adjusted									**1.00**
Weapons Offenses	**0**	**3,335**	**3,335**	**0.00**	**786**	**2,548**	**3,335**	**0.24**	**0.24**
Parameter Adjusted				**0.00**				**0.02**	**0.02**
Prostitution	374	391	765	0.49	117	648	765	0.15	0.64
Sex offenses	0	2,393	2,393	0.00	270	2,123	2,393	0.11	0.11
Gambling									
Family and children	274	5,356	5,630	0.05	340	5,289	5,630	0.06	0.11
DUI	715	24,492	25,207	0.03	2,293	22,914	25,207	0.09	0.12
Liquor laws	0	159	159	0.00	159	0	159	1.00	1.00
Drunkenness	267	3,318	3,585	0.07	519	3,066	3,585	0.14	0.22
Disorderly conduct									
Vagrancy									
All other offenses	2,061	40,854	42,915	0.05	6,221	36,581	42,802	0.15	0.19
Suspicion									
Curfew and loitering									
Runaways	0	532	532	0.00	251	281	532	0.47	0.47
Other Offenses	**3,691**	**77,495**	**81,186**	**0.05**	**10,170**	**70,902**	**81,073**	**0.13**	**0.17**
Parameter Adjusted				**0.05**				**0.01**	**0.06**

Offense Parameters:

			Related	Total
Violent Offenses	=	0.10	x	
Property Offenses	=	0.10	x	
Drug Offenses	=	1.00		x
Weapons Offenses	=	0.10	x	
Other Offenses	=	0.10	x	

All costs reported in red italics are in thousands.

Table 1.6. Jail Attribution Factors (Sentenced Awaiting Transfer)

UCR Offense	Indicators								
	Instrumental Offenses				Related Offenses				Drug-Induced
	yes	no	total	prop.	yes	no	total	prop.	prop.
Total	**9,440**	**34,733**	**44,173**	**0.21**	**9,424**	**34,749**	**44,173**	**0.21**	**0.43**
Parameter Adjusted				**0.21**				**0.20**	**0.42**
Murder	0	1,628	1,628	0.00	315	1,313	1,628	0.19	0.19
Forcible rape	0	937	937	0.00	114	823	937	0.12	0.12
Robbery	756	1,548	2,304	0.33	920	1,384	2,304	0.40	0.73
Aggravated assault	0	2,362	2,362	0.00	1,106	1,256	2,362	0.47	0.47
Other assaults	0	799	799	0.00	0	799	799	0.00	0.00
Violent Offenses	**756**	**7,273**	**8,029**	**0.09**	**2,455**	**5,574**	**8,029**	**0.31**	**0.40**
Parameter Adjusted				**0.09**				**0.03**	**0.12**
Burglary	1,264	2,651	3,915	0.32	514	3,401	3,915	0.13	0.45
Larceny-theft	1,265	2,619	3,884	0.33	497	3,387	3,884	0.13	0.45
Motor vehicle theft	336	1,163	1,499	0.22	113	1,387	1,499	0.08	0.30
Arson	0	126	126	0.00	51	75	126	0.41	0.41
Forgery and fraud	1,251	1,870	3,121	0.40	301	2,820	3,121	0.10	0.50
Embezzlement	29	74	103	0.28	0	103	103	0.00	0.28
Stolen property	0	302	302	0.00	152	149	302	0.51	0.51
Vandalism	0	313	313	0.00	197	115	313	0.63	0.63
Property Offenses	**4,146**	**9,117**	**13,263**	**0.31**	**1,825**	**11,438**	**13,263**	**0.14**	**0.45**
Parameter Adjusted				**0.31**				**0.01**	**0.33**
Drug Offenses	**3,771**	**8,348**	**12,119**	**0.31**	**3,693**	**8,426**	**12,119**	**0.30**	**0.62**
Parameter Adjusted									**1.00**
Weapons Offenses	**0**	**1,658**	**1,658**	**0.00**	**691**	**966**	**1,658**	**0.42**	**0.42**
Parameter Adjusted				**0.00**				**0.04**	**0.04**
Prostitution	113	121	234	0.48	121	113	234	0.52	1.00
Sex offenses	0	464	464	0.00	0	464	464	0.00	0.00
Gambling									
Family and children	0	456	456	0.00	0	456	456	0.00	0.00
DUI	0	2,334	2,334	0.00	296	2,038	2,334	0.13	0.13
Liquor laws									
Drunkenness	0	264	264	0.00	0	264	264	0.00	0.00
Disorderly conduct									
Vagrancy									
All other offenses	654	4,699	5,353	0.12	343	5,010	5,353	0.06	0.19
Suspicion									
Curfew and loitering									
Runaways									
Other Offenses	**767**	**8,338**	**9,105**	**0.08**	**760**	**8,345**	**9,105**	**0.08**	**0.17**
Parameter Adjusted				**0.08**				**0.01**	**0.09**

Offense Parameters:

			Related	Total
Violent Offenses	=	0.10	x	
Property Offenses	=	0.10	x	
Drug Offenses	=	1.00		x
Weapons Offenses	=	0.10	x	
Other Offenses	=	0.10	x	

All costs reported in red italics are in thousands.

Table 1.7. Jail Attribution Factors (All Sentenced Cases)

UCR Offense	Indicators								
	Instrumental Offenses				Related Offenses				Drug-Induced
	yes	no	total	prop.	yes	no	total	prop.	prop.
Total	**35,969**	**225,239**	**261,208**	**0.14**	**44,093**	**217,002**	**261,095**	**0.17**	**0.31**
Parameter Adjusted				**0.14**				**0.19**	**0.33**
Murder	117	4,193	4,310	0.03	516	3,794	4,310	0.12	0.15
Forcible rape	235	5,680	5,915	0.04	929	4,985	5,915	0.16	0.20
Robbery	2,087	5,613	7,700	0.27	1,815	5,884	7,700	0.24	0.51
Aggravated assault	645	22,756	23,401	0.03	3,877	19,525	23,401	0.17	0.19
Other assaults	122	5,185	5,307	0.02	1,090	4,217	5,307	0.21	0.23
Violent Offenses	**3,205**	**43,426**	**46,631**	**0.07**	**8,227**	**38,405**	**46,631**	**0.18**	**0.25**
Parameter Adjusted				**0.07**				**0.02**	**0.09**
Burglary	4,797	10,730	15,527	0.31	2,171	13,356	15,527	0.14	0.45
Larceny-theft	5,283	13,819	19,101	0.28	2,097	17,004	19,101	0.11	0.39
Motor vehicle theft	747	2,650	3,397	0.22	714	2,684	3,397	0.21	0.43
Arson	0	575	575	0.00	75	500	575	0.13	0.13
Forgery and fraud	3,859	8,398	12,257	0.31	871	11,386	12,257	0.07	0.39
Embezzlement	29	300	329	0.09	0	329	329	0.00	0.09
Stolen property	466	3,879	4,344	0.11	622	3,723	4,344	0.14	0.25
Vandalism	29	2,860	2,889	0.01	520	2,369	2,889	0.18	0.19
Property Offenses	**15,210**	**43,209**	**58,419**	**0.26**	**7,069**	**51,350**	**58,419**	**0.12**	**0.38**
Parameter Adjusted				**0.26**				**0.01**	**0.27**
Drug Offenses	**13,095**	**47,780**	**60,875**	**0.22**	**16,390**	**44,485**	**60,875**	**0.27**	**0.48**
Parameter Adjusted									**1.00**
Weapons Offenses	**0**	**4,992**	**4,992**	**0.00**	**1,477**	**3,515**	**4,992**	**0.30**	**0.30**
Parameter Adjusted				**0.00**				**0.03**	**0.03**
Prostitution	487	512	999	0.49	238	761	999	0.24	0.73
Sex offenses	0	2,857	2,857	0.00	270	2,587	2,857	0.09	0.09
Gambling									
Family and children	274	5,812	6,086	0.05	340	5,746	6,086	0.06	0.10
DUI	715	26,826	27,541	0.03	2,589	24,952	27,541	0.09	0.12
Liquor laws	0	159	159		159	0	159		
Drunkenness	267	3,581	3,849	0.07	519	3,330	3,849	0.13	0.20
Disorderly conduct									
Vagrancy									
All other offenses	2,715	45,553	48,268	0.06	6,564	41,591	48,155	0.14	0.19
Suspicion									
Curfew and loitering									
Runaways	0	532	532		251	281	532		
Other Offenses	**4,459**	**85,833**	**90,291**	**0.05**	**10,930**	**79,248**	**90,178**	**0.12**	**0.17**
Parameter Adjusted				**0.05**				**0.01**	**0.06**

Offense Parameters:

			Related	Total
Violent Offenses	=	0.10	x	
Property Offenses	=	0.10	x	
Drug Offenses	=	1.00		x
Weapons Offenses	=	0.10	x	
Other Offenses	=	0.10	x	

All costs reported in red italics are in thousands.

Table 1.8. State Prison Attribution Factors

UCR Offense	Indicators								
	Instrumental Offenses				Related Offenses				Drug-Induced
	yes	no	total	prop.	yes	no	total	prop.	prop.
Total	**201,662**	**993,786**	**1,195,448**	**0.17**	**232,270**	**963,162**	**1,195,432**	**0.19**	**0.36**
Parameter Adjusted				**0.17**				**0.17**	**0.34**
Murder	9,165	157,884	167,049	0.05	37,565	129,483	167,049	0.22	0.28
Forcible rape	1,914	102,695	104,609	0.02	17,380	87,321	104,701	0.17	0.18
Robbery	39,118	111,710	150,827	0.26	30,507	120,215	150,723	0.20	0.46
Aggravated assault	2,949	89,286	92,234	0.03	19,742	72,492	92,234	0.21	0.25
Other assaults	487	7,336	7,823	0.06	1,268	6,555	7,823	0.16	0.22
Violent Offenses	**53,632**	**468,911**	**522,542**	**0.10**	**106,462**	**416,066**	**522,530**	**0.20**	**0.31**
Parameter Adjusted				**0.10**				**0.02**	**0.12**
Burglary	31,371	66,273	97,644	0.32	15,371	82,273	97,644	0.16	0.48
Larceny-theft	17,572	29,038	46,610	0.38	5,258	41,351	46,610	0.11	0.49
Motor vehicle theft	2,220	12,629	14,849	0.15	4,063	10,787	14,849	0.27	0.42
Arson	351	6,178	6,530	0.05	1,548	4,981	6,530	0.24	0.29
Forgery and fraud	11,385	21,888	33,273	0.34	2,498	30,775	33,273	0.08	0.42
Embezzlement	191	958	1,148	0.17	61	1,087	1,148	0.05	0.22
Stolen property	3,244	9,537	12,781	0.25	2,563	10,218	12,781	0.20	0.45
Vandalism	46	3,873	3,919	0.01	946	2,973	3,919	0.24	0.25
Property Offenses	**66,379**	**150,374**	**216,753**	**0.31**	**32,308**	**184,445**	**216,753**	**0.15**	**0.46**
Parameter Adjusted				**0.31**				**0.01**	**0.32**
Drug Offenses	**67,304**	**186,952**	**254,255**	**0.26**	**61,505**	**192,656**	**254,161**	**0.24**	**0.51**
Parameter Adjusted									**1.00**
Weapons Offenses	**1,754**	**27,787**	**29,541**	**0.06**	**6,603**	**22,938**	**29,541**	**0.22**	**0.28**
Parameter Adjusted				**0.06**				**0.02**	**0.08**
Prostitution	295	2,387	2,682	0.11	379	2,303	2,682	0.14	0.25
Sex offenses	285	23,391	23,676	0.01	2,891	20,876	23,767	0.12	0.13
Gambling									
Family and children	35	3,743	3,778	0.01	395	3,383	3,778	0.10	0.11
DUI	97	31,670	31,767	0.00	2,857	28,910	31,767	0.09	0.09
Liquor laws	0	24	24	0.00	0	24	24	0.00	0.00
Drunkenness	0	1,462	1,462	0.00	95	1,367	1,462	0.06	0.06
Disorderly conduct									
Vagrancy									
All other offenses	11,882	96,921	108,802	0.11	18,776	90,027	108,802	0.17	0.28
Suspicion									
Curfew and loitering									
Runaways	0	166	166	0.00	0	166	166	0.00	0.00
Other Offenses	**12,594**	**159,764**	**172,357**	**0.07**	**25,392**	**147,056**	**172,448**	**0.15**	**0.22**
Parameter Adjusted				**0.07**				**0.01**	**0.09**

Offense Parameters:

			Related	Total
Violent Offenses	=	0.10	x	
Property Offenses	=	0.10	x	
Drug Offenses	=	1.00		x
Weapons Offenses	=	0.10	x	
Other Offenses	=	0.10	x	

All costs reported in red italics are in thousands.

Table 1.9. Federal Prison Attribution Factors

UCR Offense	Indicators								
	Instrumental Offenses				Related Offenses				Drug-Induced
	yes	no	total	prop.	yes	no	total	prop.	prop.
Total	**23,333**	**102,008**	**125,340**	**0.19**	**17,209**	**108,074**	**125,283**	**0.14**	**0.32**
Parameter Adjusted				**0.19**				**0.42**	**0.60**
Murder	183	3,406	3,589	0.05	415	3,174	3,589	0.12	0.17
Forcible rape	0	965	965	0.00	144	821	965	0.15	0.15
Robbery	2,346	8,360	10,706	0.22	1,530	9,176	10,706	0.14	0.36
Aggravated assault	121	1,472	1,593	0.08	225	1,368	1,593	0.14	0.22
Other assaults	0	210	210	0.00	89	121	210	0.43	0.43
Violent Offenses	**2,650**	**14,413**	**17,063**	**0.16**	**2,404**	**14,659**	**17,063**	**0.14**	**0.30**
Parameter Adjusted				**0.16**				**0.01**	**0.17**
Burglary	185	412	596	0.31	50	546	596	0.08	0.39
Larceny-theft	49	523	572	0.09	24	548	572	0.04	0.13
Motor vehicle theft	0	154	154	0.00	0	154	154	0.00	0.00
Arson	0	215	215	0.00	0	215	215	0.00	0.00
Forgery and fraud	285	2,854	3,139	0.09	205	2,934	3,139	0.07	0.16
Embezzlement	0	152	152	0.00	0	152	152	0.00	0.00
Stolen property	62	387	449	0.14	62	387	449	0.14	0.28
Vandalism	0	106	106	0.00	31	75	106	0.29	0.29
Property Offenses	**580**	**4,802**	**5,383**	**0.11**	**372**	**5,011**	**5,383**	**0.07**	**0.18**
Parameter Adjusted				**0.11**				**0.01**	**0.11**
Drug Offenses	**17,567**	**51,593**	**69,160**	**0.25**	**10,232**	**58,834**	**69,066**	**0.15**	**0.40**
Parameter Adjusted									**1.00**
Weapons Offenses	**1,241**	**12,455**	**13,696**	**0.09**	**2,965**	**10,769**	**13,734**	**0.22**	**0.31**
Parameter Adjusted				**0.09**				**0.02**	**0.11**
Prostitution	33	825	858	0.04	53	805	858	0.06	0.10
Sex offenses	0	115	115	0.00	0	115	115	0.00	0.00
Gambling									
Family and children	0	88	88	0.00	0	88	88	0.00	0.00
DUI	0	252	252	0.00	0	252	252	0.00	0.00
Liquor laws									
Drunkenness	0	73	73	0.00	0	73	73	0.00	0.00
Disorderly conduct									
Vagrancy									
All other offenses	1,261	17,392	18,653	0.07	1,184	17,469	18,653	0.06	0.13
Suspicion									
Curfew and loitering									
Runaways									
Other Offenses	**1,294**	**18,744**	**20,038**	**0.06**	**1,237**	**18,801**	**20,038**	**0.06**	**0.13**
Parameter Adjusted				**0.06**				**0.01**	**0.07**

Parameters:

			Related	Total
Violent Offenses	=	0.10	x	
Property Offenses	=	0.10	x	
Drug Offenses	=	1.00		x
Weapons Offenses	=	0.10	x	
Other Offenses	=	0.10	x	

All costs reported in red italics are in thousands.

Table 1.10. Weighted Attribution Factors (State and Local Incarcerated Populations)

UCR Offense	Jail Indicators									State Prison Indicators								Weighted
	Instrumental Offenses				Related Offenses				Drug-Induced	Instrumental Offenses				Related Offenses				Drug-Induced	
	yes	no	total	prop.	yes	no	total	prop.	prop.	yes	no	total	prop.	yes	no	total	prop.	prop.	prop.
Total	**35,969**	**225,239**	**261,208**	**0.14**	**44,093**	**217,002**	**261,095**	**0.17**	**0.31**	**201,662**	**993,786**	**1,195,448**	**0.17**	**232,270**	**963,162**	**1,195,432**	**0.19**	**0.36**	**0.35**
Parameter Adjusted				**0.14**				**0.19**	**0.33**				**0.17**				**0.17**	**0.34**	**0.34**
Murder	117	4,193	4,310	0.03	516	3,794	4,310	0.12	0.15	9,165	157,884	167,049	0.05	37,565	129,483	167,049	0.22	0.28	0.28
Forcible rape	235	5,680	5,915	0.04	929	4,985	5,915	0.16	0.20	1,914	102,695	104,609	0.02	17,380	87,321	104,701	0.17	0.18	0.18
Robbery	2,087	5,613	7,700	0.27	1,815	5,884	7,700	0.24	0.51	39,118	111,710	150,827	0.26	30,507	120,215	150,723	0.20	0.46	0.46
Aggravated assault	645	22,756	23,401	0.03	3,877	19,525	23,401	0.17	0.19	2,949	89,286	92,234	0.03	19,742	72,492	92,234	0.21	0.25	0.24
Other assaults	122	5,185	5,307	0.02	1,090	4,217	5,307	0.21	0.23	487	7,336	7,823	0.06	1,268	6,555	7,823	0.16	0.22	0.23
Violent Offenses	**3,205**	**43,426**	**46,631**	**0.07**	**8,227**	**38,405**	**46,631**	**0.18**	**0.25**	**53,632**	**468,911**	**522,542**	**0.10**	**106,462**	**416,066**	**522,530**	**0.20**	**0.31**	**0.30**
Parameter Adjusted				**0.07**				**0.02**	**0.09**				**0.10**				**0.02**	**0.12**	**0.12**
Burglary	4,797	10,730	15,527	0.31	2,171	13,356	15,527	0.14	0.45	31,371	66,273	97,644	0.32	15,371	82,273	97,644	0.16	0.48	0.47
Larceny-theft	5,283	13,819	19,101	0.28	2,097	17,004	19,101	0.11	0.39	17,572	29,038	46,610	0.38	5,258	41,351	46,610	0.11	0.49	0.46
Motor vehicle theft	747	2,650	3,397	0.22	714	2,684	3,397	0.21	0.43	2,220	12,629	14,849	0.15	4,063	10,787	14,849	0.27	0.42	0.42
Arson	0	575	575	0.00	75	500	575	0.13	0.13	351	6,178	6,530	0.05	1,548	4,981	6,530	0.24	0.29	0.28
Forgery and fraud	3,859	8,398	12,257	0.31	871	11,386	12,257	0.07	0.39	11,385	21,888	33,273	0.34	2,498	30,775	33,273	0.08	0.42	0.41
Embezzlement	29	300	329	0.09	0	329	329	0.00	0.09	191	958	1,148	0.17	61	1,087	1,148	0.05	0.22	0.19
Stolen property	466	3,879	4,344	0.11	622	3,723	4,344	0.14	0.25	3,244	9,537	12,781	0.25	2,563	10,218	12,781	0.20	0.45	0.40
Vandalism	29	2,860	2,889	0.01	520	2,369	2,889	0.18	0.19	46	3,873	3,919	0.01	946	2,973	3,919	0.24	0.25	0.23
Property Offenses	**15,210**	**43,209**	**58,419**	**0.26**	**7,069**	**51,350**	**58,419**	**0.12**	**0.38**	**66,379**	**150,374**	**216,753**	**0.31**	**32,308**	**184,445**	**216,753**	**0.15**	**0.46**	**0.44**
Parameter Adjusted				**0.26**				**0.01**	**0.27**				**0.31**				**0.01**	**0.32**	**0.31**
Drug Offenses	**13,095**	**47,780**	**60,875**	**0.22**	**16,390**	**44,485**	**60,875**	**0.27**	**0.48**	**67,304**	**186,952**	**254,255**	**0.26**	**61,505**	**192,656**	**254,161**	**0.24**	**0.51**	**0.50**
Parameter Adjusted									**1.00**									**1.00**	**1.00**
Weapons Offenses	**0**	**4,992**	**4,992**	**0.00**	**1,477**	**3,515**	**4,992**	**0.30**	**0.30**	**1,754**	**27,787**	**29,541**	**0.06**	**6,603**	**22,938**	**29,541**	**0.22**	**0.28**	**0.28**
Parameter Adjusted				**0.00**				**0.03**	**0.03**				**0.06**				**0.02**	**0.08**	**0.07**
Prostitution	487	512	999	0.49	238	761	999	0.24	0.73	295	2,387	2,682	0.11	379	2,303	2,682	0.14	0.25	0.38
Sex offenses	0	2,857	2,857	0.00	270	2,587	2,857	0.09	0.09	285	23,391	23,676	0.01	2,891	20,876	23,767	0.12	0.13	0.13
Gambling																			
Family and children	274	5,812	6,086	0.05	340	5,746	6,086	0.06	0.10	35	3,743	3,778	0.01	395	3,383	3,778	0.10	0.11	0.11
DUI	715	26,826	27,541	0.03	2,589	24,952	27,541	0.09	0.12	97	31,670	31,767	0.00	2,857	28,910	31,767	0.09	0.09	0.11
Liquor laws	0	159	159	0.00	159	0	159	1.00	1.00	0	24	24	0.00	0	24	24	0.00	0.00	
Drunkenness	267	3,581	3,849	0.07	519	3,330	3,849	0.13	0.20	0	1,462	1,462	0.00	95	1,367	1,462	0.06	0.06	0.17
Disorderly conduct																			
Vagrancy																			
All other offenses	2,715	45,553	48,268	0.06	6,564	41,591	48,155	0.14	0.19	11,882	96,921	108,802	0.11	18,776	90,027	108,802	0.17	0.28	0.25
Suspicion																			
Curfew and loitering																			
Runaways	0	532	532	0.00	251	281	532	0.47	0.47	0	166	166	0.00	0	166	166	0.00	0.00	
Other Offenses	**4,459**	**85,833**	**90,291**	**0.05**	**10,930**	**79,248**	**90,178**	**0.12**	**0.17**	**12,594**	**159,764**	**172,357**	**0.07**	**25,392**	**147,056**	**172,448**	**0.15**	**0.22**	**0.20**
Parameter Adjusted				**0.05**				**0.01**	**0.06**				**0.07**				**0.01**	**0.09**	**0.08**

Offense Parameters:

			Related	Total		Related	Total
Violent Offenses	=	0.10	x		0.10	x	
Property Offenses	=	0.10	x		0.10	x	
Drug Offenses	=	1.00		x	1.00		x
Weapons Offenses	=	0.10	x		0.10	x	
Other Offenses	=	0.10	x		0.10	x	

All costs reported in red italics are in thousands.

Table 1.11. Weighted Attribution Factors (All Incarcerated Populations)

UCR Offense	Jail Indicators					State Prison Indicators					Federal Prison Indicators					Weighted
	Instrumental Offenses		Related Offenses		Drug-Induced	Instrumental Offenses		Related Offenses		Drug-Induced	Instrumental Offenses		Related Offenses		Drug-Induced	
	total	prop.	total	prop.	prop.	total	prop.	total	prop.	prop.	total	prop.	total	prop.	prop.	prop.
Total	**261,208**	**0.14**	**261,095**	**0.17**	**0.31**	**1,195,448**	**0.17**	**1,195,432**	**0.19**	**0.36**	**125,340**	**0.19**	**125,283**	**0.14**	**0.32**	**0.35**
Parameter Adjusted		**0.14**		**0.19**	**0.33**		**0.17**		**0.17**	**0.34**		**0.19**		**0.42**	**0.60**	**0.36**
Murder	4,310	0.03	4,310	0.12	0.15	167,049	0.05	167,049	0.22	0.28	3,589	0.05	3,589	0.12	0.17	0.27
Forcible rape	5,915	0.04	5,915	0.16	0.20	104,609	0.02	104,701	0.17	0.18	965	0.00	965	0.15	0.15	0.18
Robbery	7,700	0.27	7,700	0.24	0.51	150,827	0.26	150,723	0.20	0.46	10,706	0.22	10,706	0.14	0.36	0.46
Aggravated assault	23,401	0.03	23,401	0.17	0.19	92,234	0.03	92,234	0.21	0.25	1,593	0.08	1,593	0.14	0.22	0.24
Other assaults	5,307	0.02	5,307	0.21	0.23	7,823	0.06	7,823	0.16	0.22	210	0.00	210	0.43	0.43	0.23
Violent Offenses	**46,631**	**0.07**	**46,631**	**0.18**	**0.25**	**522,542**	**0.10**	**522,530**	**0.20**	**0.31**	**17,063**	**0.16**	**17,063**	**0.14**	**0.30**	**0.30**
Parameter Adjusted		**0.07**		**0.02**	**0.09**		**0.10**		**0.02**	**0.12**		**0.16**		**0.01**	**0.17**	**0.12**
Burglary	15,527	0.31	15,527	0.14	0.45	97,644	0.32	97,644	0.16	0.48	596	0.31	596	0.08	0.39	0.47
Larceny-theft	19,101	0.28	19,101	0.11	0.39	46,610	0.38	46,610	0.11	0.49	572	0.09	572	0.04	0.13	0.46
Motor vehicle theft	3,397	0.22	3,397	0.21	0.43	14,849	0.15	14,849	0.27	0.42	154	0.00	154	0.00	0.00	0.42
Arson	575	0.00	575	0.13	0.13	6,530	0.05	6,530	0.24	0.29	215	0.00	215	0.00	0.00	0.27
Forgery and fraud	12,257	0.31	12,257	0.07	0.39	33,273	0.34	33,273	0.08	0.42	3,139	0.09	3,139	0.07	0.16	0.39
Embezzlement	329	0.09	329	0.00	0.09	1,148	0.17	1,148	0.05	0.22	152	0.00	152	0.00	0.00	0.17
Stolen property	4,344	0.11	4,344	0.14	0.25	12,781	0.25	12,781	0.20	0.45	449	0.14	449	0.14	0.28	0.40
Vandalism	2,889	0.01	2,889	0.18	0.19	3,919	0.01	3,919	0.24	0.25	106	0.00	106	0.29	0.29	0.23
Property Offenses	**58,419**	**0.26**	**58,419**	**0.12**	**0.38**	**216,753**	**0.31**	**216,753**	**0.15**	**0.46**	**5,383**	**0.11**	**5,383**	**0.07**	**0.18**	**0.43**
Parameter Adjusted		**0.26**		**0.01**	**0.27**		**0.31**		**0.01**	**0.32**		**0.11**		**0.01**	**0.11**	**0.31**
Drug Offenses	**60,875**	**0.22**	**60,875**	**0.27**	**0.48**	**254,255**	**0.26**	**254,161**	**0.24**	**0.51**	**69,160**	**0.25**	**69,066**	**0.15**	**0.40**	**0.48**
Parameter Adjusted					**1.00**					**1.00**					**1.00**	**1.00**
Weapons Offenses	**4,992**	**0.00**	**4,992**	**0.30**	**0.30**	**29,541**	**0.06**	**29,541**	**0.22**	**0.28**	**13,696**	**0.09**	**13,734**	**0.22**	**0.31**	**0.29**
Parameter Adjusted		**0.00**		**0.03**	**0.03**		**0.06**		**0.02**	**0.08**		**0.09**		**0.02**	**0.11**	**0.08**
Prostitution	999	0.49	999	0.24	0.73	2,682	0.11	2,682	0.14	0.25	858	0.04	858	0.06	0.10	0.33
Sex offenses	2,857	0.00	2,857	0.09	0.09	23,676	0.01	23,767	0.12	0.13	115	0.00	115	0.00	0.00	0.13
Gambling																
Family and children	6,086	0.05	6,086	0.06	0.10	3,778	0.01	3,778	0.10	0.11	88	0.00	88	0.00	0.00	0.10
DUI	27,541	0.03	27,541	0.09	0.12	31,767	0.00	31,767	0.09	0.09	252	0.00	252	0.00	0.00	0.11
Liquor laws	159	0.00	159	1.00	1.00	24	0.00	24	0.00	0.00						
Drunkenness	3,849	0.07	3,849	0.13	0.20	1,462	0.00	1,462	0.06	0.06	73	0.00	73	0.00	0.00	0.16
Disorderly conduct																
Vagrancy																
All other offenses	48,268	0.06	48,155	0.14	0.19	108,802	0.11	108,802	0.17	0.28	18,653	0.07	18,653	0.06	0.13	0.24
Suspicion																
Curfew and loitering																
Runaways	532	0.00	532	0.47	0.47	166	0.00	166	0.00	0.00						
Other Offenses	**90,291**	**0.05**	**90,178**	**0.12**	**0.17**	**172,357**	**0.07**	**172,448**	**0.15**	**0.22**	**20,038**	**0.06**	**20,038**	**0.06**	**0.13**	**0.20**
Parameter Adjusted		**0.05**		**0.01**	**0.06**		**0.07**		**0.01**	**0.09**		**0.06**		**0.01**	**0.07**	**0.08**

Offense Parameters:		**Related**	**Total**			**Related**	**Total**			**Related**	**Total**	
Violent Offenses	=	x		0.10		x		0.10		x		0.10
Property Offenses	=	x		0.10		x		0.10		x		0.10
Drug Offenses	=		x	1.00			x	1.00			x	1.00
Weapons Offenses	=	x		0.10		x		0.10		x		0.10
Other Offenses	=	x		0.10		x		0.10		x		0.10

All costs reported in red italics are in thousands.

Table 1.12. Probation and Parole Attribution Factors (State and Federal)

State and Local	1/1/2007		12/31/2007	Midyear	Attribution	Drug-Induced
Probation		**4,190,896**	**4,269,713**	**4,229,881**		**1,663,800**
Violent	0.17	712,452	725,851	726,343	0.12	87,168
Property	0.24	1,005,815	1,024,731	1,025,426	0.31	318,716
Drug	0.27	1,131,542	1,152,823	1,153,604	1.00	1,153,604
Other	0.31	1,299,178	1,323,611	1,324,508	0.08	104,312
Total Attribution						**0.39**
Parole		**710,882**	**733,424**	**722,153**		**352,669**
Violent	0.26	184,829	190,690	187,760	0.12	22,533
Property	0.25	177,721	183,356	180,538	0.31	56,114
Drug	0.37	263,026	271,367	267,197	1.00	267,197
Other	0.12	85,306	88,011	86,658	0.08	6,825
Total Attribution						**0.49**

Federal	1/1/2007		12/31/2007	Midyear	Attribution	Drug-Induced
Probation		**24,465**	**23,450**	**23,955**		**8,427**
Violent	0.17	4,159	3,987	4,114	0.17	697
Property	0.24	5,872	5,628	5,807	0.11	666
Drug	0.27	6,606	6,332	6,533	1.00	6,533
Other	0.31	7,584	7,270	7,501	0.07	531
Total Attribution						**0.35**
Parole		**89,993**	**92,673**	**91,333**		**41,211**
Violent	0.26	23,398	24,095	23,747	0.17	4,023
Property	0.25	22,498	23,168	22,833	0.11	2,619
Drug	0.37	33,297	34,289	33,793	1.00	33,793
Other	0.12	10,799	11,121	10,960	0.07	775
Total Attribution						**0.45**

All costs reported in red italics are in thousands.

All costs reported in red italics are in thousands.

Appendix B.

Refer to Chapter 3

Statistical Tables for Premature Mortality

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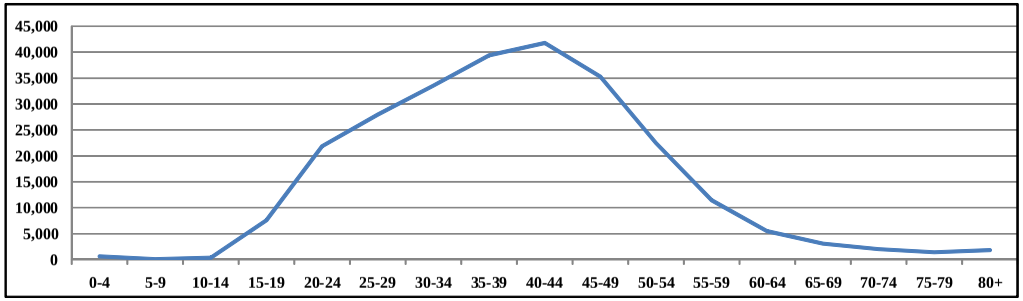
All costs reported in red italics are in thousands.

Table 3.17. Age at Death for Males: Drug-Induced (Without ICD-10 Correction)

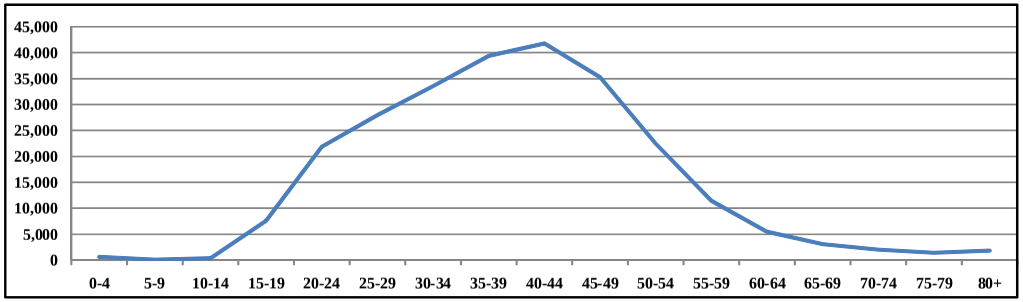
	Age at Death for Males (Drug-Induced and Drug-Related)																	
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**	**Total**
1968	24	1	7	168	310	238	174	163	139	109	103	111	63	48	45	26	24	1,753
1969	18	2	10	240	414	272	174	154	118	110	90	91	74	55	51	28	23	1,924
1970	17	2	13	345	622	317	231	163	166	128	99	73	64	66	41	24	36	2,407
1971	20	1	13	470	943	462	240	207	166	166	111	91	63	60	50	28	33	3,124
1972	20	0	16	392	834	502	254	228	178	134	74	84	80	30	40	32	42	2,940
1973	16	2	7	261	703	476	256	164	147	121	79	82	68	43	35	36	30	2,526
1974	12	1	6	244	710	538	318	181	144	98	88	58	45	49	28	33	16	2,569
1975	9	2	3	206	886	695	372	194	135	112	82	55	43	39	35	29	27	2,924
1976	9	2	7	142	669	660	326	194	140	102	71	57	52	40	27	28	22	2,548
1977	7	1	4	80	327	357	215	117	77	70	63	49	48	40	33	19	24	1,531
1978	7	2	4	80	280	320	219	116	68	70	59	34	33	29	33	21	23	1,398
1979	18	1	2	114	434	656	436	234	194	141	133	100	79	56	52	33	28	2,711
1980	14	4	2	96	392	671	495	296	203	153	115	116	57	55	43	31	34	2,777
1981	15	4	7	65	350	642	559	329	220	152	118	82	65	50	33	23	33	2,747
1982	10	0	6	79	317	759	714	387	192	170	113	95	43	39	29	37	42	3,032
1983	12	0	4	61	299	651	709	447	259	174	123	91	70	45	45	37	43	3,070
1984	10	0	7	63	271	628	804	531	311	166	123	119	59	53	46	24	42	3,257
1985	7	0	3	62	297	710	999	788	356	219	148	102	76	49	42	31	32	3,921
1986	14	1	7	78	289	747	1,136	949	477	243	193	109	73	50	47	28	36	4,477
1987	19	4	5	65	240	579	948	930	462	273	153	124	99	57	40	33	47	4,078
1988	5	0	3	78	271	584	1,096	1,057	617	352	174	134	86	66	38	34	52	4,647
1989	14	2	10	99	246	578	961	1,098	617	317	188	135	79	57	36	30	48	4,515
1990	12	3	4	72	195	461	778	928	610	290	172	121	81	54	44	35	49	3,909
1991	17	2	7	70	216	477	748	877	731	311	199	132	89	61	39	44	55	4,075
1992	11	1	10	73	257	573	922	1,246	969	459	248	130	109	64	41	30	64	5,207
1993	21	8	6	83	297	595	1,079	1,473	1,348	595	259	141	107	57	49	30	53	6,201
1994	15	3	8	75	284	583	1,122	1,381	1,387	759	323	164	93	56	37	33	53	6,376
1995	13	4	5	87	341	629	1,083	1,574	1,507	888	390	174	103	53	40	26	60	6,977
1996	13	4	8	127	330	578	1,010	1,402	1,491	1,048	399	189	95	80	47	39	42	6,902
1997	13	5	8	132	376	614	1,033	1,532	1,648	1,164	478	240	106	61	55	43	46	7,554
1998	15	5	6	155	440	633	1,057	1,498	1,798	1,331	584	237	127	65	53	31	62	8,097
1999	14	3	11	237	639	999	1,455	2,265	2,841	2,378	1,183	513	243	139	79	43	60	13,102
2000	19	3	10	261	760	974	1,373	2,176	2,755	2,494	1,347	507	244	108	70	48	62	13,211
2001	27	1	18	340	863	1,031	1,396	2,159	2,850	2,662	1,607	622	272	141	75	57	69	14,190
2002	15	3	17	400	1,038	1,204	1,672	2,465	3,229	3,039	2,008	846	363	150	90	66	78	16,683
2003	25	3	11	416	1,294	1,346	1,739	2,501	3,379	3,393	2,299	1,049	403	212	92	64	76	18,302
2004	22	2	18	554	1,391	1,592	1,711	2,384	3,296	3,566	2,603	1,268	458	204	104	74	63	19,310
2005	23	2	15	413	1,228	1,462	1,532	1,921	2,862	3,156	2,379	1,220	487	173	91	52	88	17,104
2006	33	6	21	583	1,825	2,178	2,199	2,659	3,668	4,138	3,483	1,890	645	295	131	68	93	23,915
2007	28	4	18	498	1,527	1,820	1,866	2,290	3,265	3,647	2,931	1,555	566	234	111	60	91	20,510
Total	605	90	329	7,566	21,878	27,971	33,545	39,368	41,755	35,251	22,461	11,435	5,444	3,049	2,006	1,428	1,810	255,991



All costs reported in red italics are in thousands.

Table 3.18. Age at Death for Males: Drug-Induced (With ICD-10 Correction)

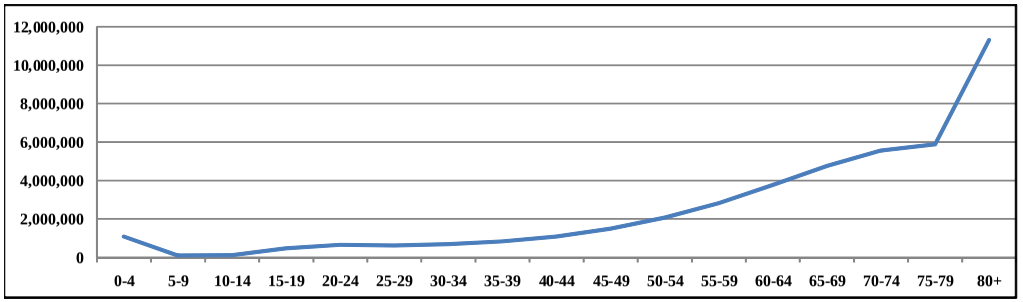
	Age at Death for Males (Drug-Induced and Drug-Related)																
Year	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	Total
1968	29	1	8	202	372	286	209	196	167	131	124	133	76	58	54	31	29	2,104
1969	22	2	12	288	497	326	209	185	142	132	108	109	89	66	61	34	28	2,309
1970	20	2	16	414	746	380	277	196	199	154	119	88	77	79	49	29	43	2,888
1971	24	1	16	564	1,132	554	288	248	199	199	133	109	76	72	60	34	40	3,749
1972	24	0	19	470	1,001	602	305	274	214	161	89	101	96	36	48	38	50	3,528
1973	19	2	8	313	844	571	307	197	176	145	95	98	82	52	42	43	36	3,031
1974	14	1	7	293	852	646	382	217	173	118	106	70	54	59	34	40	19	3,083
1975	11	2	4	247	1,063	834	446	233	162	134	98	66	52	47	42	35	32	3,509
1976	11	2	8	170	803	792	391	233	168	122	85	68	62	48	32	34	26	3,058
1977	8	1	5	96	392	428	258	140	92	84	76	59	58	48	40	23	29	1,837
1978	8	2	5	96	336	384	263	139	82	84	71	41	40	35	40	25	28	1,678
1979	22	1	2	137	521	787	523	281	233	169	160	120	95	67	62	40	34	3,253
1980	17	5	2	115	470	805	594	355	244	184	138	139	68	66	52	37	41	3,332
1981	18	5	8	78	420	770	671	395	264	182	142	98	78	60	40	28	40	3,296
1982	12	0	7	95	380	911	857	464	230	204	136	114	52	47	35	44	50	3,638
1983	14	0	5	73	359	781	851	536	311	209	148	109	84	54	54	44	52	3,684
1984	12	0	8	76	325	754	965	637	373	199	148	143	71	64	55	29	50	3,908
1985	8	0	4	74	356	852	1,199	946	427	263	178	122	91	59	50	37	38	4,705
1986	17	1	8	94	347	896	1,363	1,139	572	292	232	131	88	60	56	34	43	5,372
1987	23	5	6	78	288	695	1,138	1,116	554	328	184	149	119	68	48	40	56	4,894
1988	6	0	4	94	325	701	1,315	1,268	740	422	209	161	103	79	46	41	62	5,576
1989	17	2	12	119	295	694	1,153	1,318	740	380	226	162	95	68	43	36	58	5,418
1990	14	4	5	86	234	553	934	1,114	732	348	206	145	97	65	53	42	59	4,691
1991	20	2	8	84	259	572	898	1,052	877	373	239	158	107	73	47	53	66	4,890
1992	13	1	12	88	308	688	1,106	1,495	1,163	551	298	156	131	77	49	36	77	6,248
1993	25	10	7	100	356	714	1,295	1,768	1,618	714	311	169	128	68	59	36	64	7,441
1994	18	4	10	90	341	700	1,346	1,657	1,664	911	388	197	112	67	44	40	64	7,651
1995	16	5	6	104	409	755	1,300	1,889	1,808	1,066	468	209	124	64	48	31	72	8,372
1996	16	5	10	152	396	694	1,212	1,682	1,789	1,258	479	227	114	96	56	47	50	8,282
1997	16	6	10	158	451	737	1,240	1,838	1,978	1,397	574	288	127	73	66	52	55	9,065
1998	18	6	7	186	528	760	1,268	1,798	2,158	1,597	701	284	152	78	64	37	74	9,716
1999	14	3	11	237	639	999	1,455	2,265	2,841	2,378	1,183	513	243	139	79	43	60	13,102
2000	19	3	10	261	760	974	1,373	2,176	2,755	2,494	1,347	507	244	108	70	48	62	13,211
2001	27	1	18	340	863	1,031	1,396	2,159	2,850	2,662	1,607	622	272	141	75	57	69	14,190
2002	15	3	17	400	1,038	1,204	1,672	2,465	3,229	3,039	2,008	846	363	150	90	66	78	16,683
2003	25	3	11	416	1,294	1,346	1,739	2,501	3,379	3,393	2,299	1,049	403	212	92	64	76	18,302
2004	22	2	18	554	1,391	1,592	1,711	2,384	3,296	3,566	2,603	1,268	458	204	104	74	63	19,310
2005	23	2	15	413	1,228	1,462	1,532	1,921	2,862	3,156	2,379	1,220	487	173	91	52	88	17,104
2006	33	6	21	583	1,825	2,178	2,199	2,659	3,668	4,138	3,483	1,890	645	295	131	68	93	23,915
2007	28	4	18	498	1,527	1,820	1,866	2,290	3,265	3,647	2,931	1,555	566	234	111	60	91	20,510
Total	690	103	371	8,438	24,446	31,408	37,639	43,536	45,130	37,336	23,571	12,139	5,910	3,374	2,261	1,619	2,054	280,026



All costs reported in red italics are in thousands.

Table 3.19. Age at Death for All Males

	Age at Death for All Males																	
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**	**Total**
1968	51,303	5,401	5,451	14,231	15,722	12,469	12,332	17,635	28,915	44,531	64,175	89,119	112,170	128,517	142,419	138,375	204,045	1,086,810
1969	50,072	5,335	5,395	15,316	17,188	13,305	12,630	17,503	28,891	44,520	63,028	88,422	111,143	128,187	138,099	136,136	205,349	1,080,519
1970	49,408	5,072	5,454	15,267	17,952	13,500	12,936	17,062	28,292	44,372	63,140	88,617	112,317	128,688	136,559	135,499	205,189	1,079,324
1971	45,468	4,871	5,324	15,746	18,990	14,071	13,042	16,868	26,962	43,137	62,574	86,970	112,017	127,754	135,982	136,908	211,440	1,078,124
1972	41,094	4,512	5,434	16,280	19,480	14,996	13,578	16,516	26,516	43,584	63,936	87,458	115,356	131,772	139,398	140,058	217,272	1,097,240
1973	38,242	4,487	5,501	16,798	20,059	15,940	14,315	16,691	25,606	42,459	62,975	86,454	114,545	133,242	139,121	137,500	223,954	1,097,889
1974	35,977	4,037	5,173	16,305	19,610	15,849	14,288	15,867	24,029	40,747	61,798	83,189	111,553	131,992	138,059	132,058	222,192	1,072,723
1975	33,981	3,740	4,760	15,699	19,973	16,766	14,193	15,626	22,937	38,249	60,260	81,250	109,103	130,551	135,990	129,925	219,106	1,052,109
1976	32,307	3,641	4,458	15,074	19,353	16,516	13,789	15,159	22,138	36,823	58,679	81,113	108,865	131,561	136,302	131,161	226,377	1,053,316
1977	31,666	3,571	4,363	15,642	20,140	17,025	14,711	15,581	21,502	35,178	57,177	80,460	106,679	130,075	138,346	129,674	225,805	1,047,595
1978	31,033	3,380	4,149	15,544	20,680	17,193	15,184	16,207	21,163	33,830	56,019	80,100	106,753	131,053	141,062	131,708	231,706	1,056,764
1979	30,645	3,210	3,781	15,625	21,193	18,431	16,105	16,379	20,836	32,479	53,964	78,990	103,675	129,304	140,292	132,364	229,213	1,046,486
1980	30,633	3,012	3,606	15,295	21,858	19,170	17,095	16,923	20,890	31,599	53,162	80,247	104,386	132,717	145,139	138,375	242,845	1,076,952
1981	29,198	2,816	3,452	13,511	20,329	19,260	17,800	17,013	20,847	30,972	51,026	78,058	104,300	130,586	145,278	138,478	243,225	1,066,149
1982	28,626	2,741	3,217	12,553	19,015	18,348	17,350	17,406	20,341	29,644	48,688	75,479	104,276	130,395	145,880	141,271	242,729	1,057,959
1983	27,544	2,557	3,141	11,437	17,595	17,690	17,354	17,548	20,975	28,824	46,817	75,277	104,902	130,446	149,702	147,034	254,662	1,073,505
1984	26,566	2,494	3,118	11,001	17,843	17,855	18,089	18,775	21,970	28,924	45,147	73,347	105,608	129,460	150,398	148,289	259,234	1,078,118
1985	27,282	2,442	3,075	10,908	17,458	18,321	19,231	20,638	23,001	29,264	44,237	72,387	105,680	130,476	152,982	152,841	269,019	1,099,242
1986	26,541	2,452	3,090	11,851	18,191	19,710	21,713	23,102	23,987	29,455	43,078	69,344	103,331	130,844	152,664	154,461	271,670	1,105,484
1987	26,105	2,646	2,956	11,330	17,105	19,526	22,394	24,124	25,387	30,200	42,853	67,253	101,501	131,378	152,173	155,997	276,647	1,109,575
1988	26,292	2,586	2,919	11,747	16,968	19,769	23,437	25,529	27,088	31,710	42,433	65,368	100,385	132,199	152,229	158,850	287,827	1,127,336
1989	26,533	2,523	2,939	11,338	16,016	20,054	24,334	26,836	28,678	32,821	42,240	63,169	96,849	130,122	148,806	157,290	285,510	1,116,058
1990	25,892	2,375	2,779	11,742	16,333	19,907	24,362	27,713	29,950	33,230	41,669	60,697	94,320	128,655	147,957	158,102	289,629	1,115,312
1991	25,115	2,303	2,992	11,423	16,313	19,093	24,838	28,624	32,127	34,493	41,799	59,510	92,306	126,663	149,757	158,511	297,701	1,123,568
1992	23,412	2,256	2,874	10,810	15,575	18,171	24,979	29,725	33,455	36,727	42,795	58,285	89,070	124,515	150,198	158,441	303,084	1,124,372
1993	23,007	2,224	3,018	11,233	15,848	17,848	26,023	31,287	35,298	38,195	45,511	59,305	87,979	125,710	154,438	163,892	322,883	1,163,699
1994	21,706	2,206	3,019	11,510	15,419	17,234	26,152	32,114	36,802	40,335	47,364	58,853	85,730	122,268	154,469	161,603	327,826	1,164,610
1995	20,281	2,231	3,022	11,134	14,813	16,686	25,347	32,423	37,888	42,713	48,437	59,006	83,645	119,636	154,816	164,555	338,051	1,174,684
1996	19,380	2,216	2,823	10,756	13,760	14,953	21,373	28,910	35,608	43,193	47,948	59,140	82,396	116,928	152,770	167,574	345,781	1,165,509
1997	18,965	2,061	2,741	10,333	13,154	13,865	18,023	25,171	33,163	41,570	49,286	59,332	79,895	114,063	150,350	170,005	353,935	1,155,912
1998	18,761	2,052	2,666	10,010	12,922	13,009	16,431	24,116	33,208	41,834	50,140	61,047	79,451	110,429	149,427	171,632	362,029	1,159,164
1999	18,375	1,979	2,544	9,840	12,758	12,665	15,834	23,779	33,544	43,427	52,516	63,600	79,481	107,794	147,664	175,053	376,314	1,177,167
2000	18,294	1,864	2,563	9,768	13,526	12,754	15,392	23,378	34,198	45,262	55,423	64,610	79,111	104,200	143,716	173,528	381,873	1,179,460
2001	18,166	1,749	2,461	9,819	14,326	13,140	15,862	23,841	34,534	46,685	58,423	65,968	79,342	102,342	139,705	171,507	387,154	1,185,024
2002	18,316	1,720	2,514	9,924	14,694	13,072	15,891	22,723	35,078	47,833	60,152	69,966	81,723	100,781	136,670	169,843	399,983	1,200,883
2003	18,781	1,654	2,530	9,777	15,071	13,174	15,689	21,853	34,837	49,282	61,722	72,379	84,476	100,542	131,369	167,571	403,457	1,204,164
2004	18,408	1,656	2,373	9,732	15,032	13,669	14,894	20,621	33,342	48,691	62,837	73,595	84,834	98,695	124,670	160,500	400,279	1,183,828
2005	15,451	1,279	1,873	8,241	13,004	11,879	12,649	16,790	27,775	41,066	54,494	65,256	73,356	82,621	104,693	134,281	352,226	1,016,934
2006	18,581	1,560	2,084	9,982	16,262	15,294	15,150	20,259	32,200	49,232	66,394	81,667	87,891	98,970	119,715	154,446	414,982	1,204,669
2007	17,016	1,420	1,979	9,112	14,633	13,587	13,900	18,525	29,988	45,149	60,444	73,462	80,624	90,796	112,204	144,364	383,604	1,110,802
Total	1,087,407	110,911	135,632	484,532	661,528	632,177	694,789	838,315	1,103,958	1,507,090	2,074,316	2,824,287	3,780,400	4,756,131	5,569,264	5,885,296	11,312,203	43,458,236



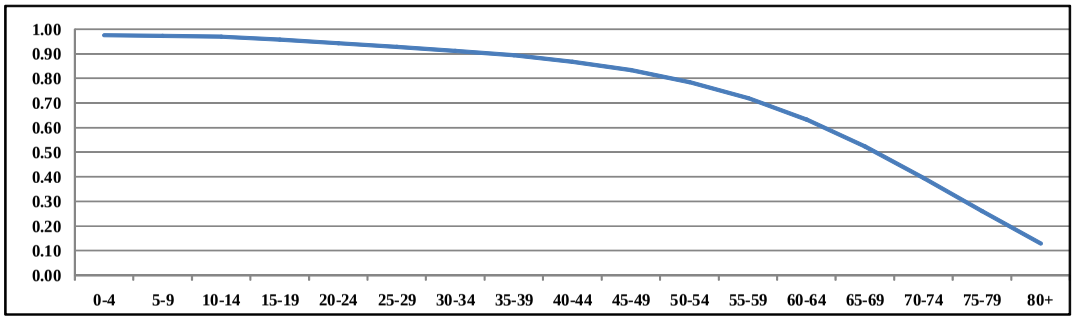
All costs reported in red italics are in thousands.

Table 3.20. Age at Death for All Males: Proportion

Year	Age at Death for All Males (Proportion)																
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+
1968	0.0472	0.0050	0.0050	0.0131	0.0145	0.0115	0.0113	0.0162	0.0266	0.0410	0.0590	0.0820	0.1032	0.1183	0.1310	0.1273	0.1877
1969	0.0463	0.0049	0.0050	0.0142	0.0159	0.0123	0.0117	0.0162	0.0267	0.0412	0.0583	0.0818	0.1029	0.1186	0.1278	0.1260	0.1900
1970	0.0458	0.0047	0.0051	0.0141	0.0166	0.0125	0.0120	0.0158	0.0262	0.0411	0.0585	0.0821	0.1041	0.1192	0.1265	0.1255	0.1901
1971	0.0422	0.0045	0.0049	0.0146	0.0176	0.0131	0.0121	0.0156	0.0250	0.0400	0.0580	0.0807	0.1039	0.1185	0.1261	0.1270	0.1961
1972	0.0375	0.0041	0.0050	0.0148	0.0178	0.0137	0.0124	0.0151	0.0242	0.0397	0.0583	0.0797	0.1051	0.1201	0.1270	0.1276	0.1980
1973	0.0348	0.0041	0.0050	0.0153	0.0183	0.0145	0.0130	0.0152	0.0233	0.0387	0.0574	0.0787	0.1043	0.1214	0.1267	0.1252	0.2040
1974	0.0335	0.0038	0.0048	0.0152	0.0183	0.0148	0.0133	0.0148	0.0224	0.0380	0.0576	0.0775	0.1040	0.1230	0.1287	0.1231	0.2071
1975	0.0323	0.0036	0.0045	0.0149	0.0190	0.0159	0.0135	0.0149	0.0218	0.0364	0.0573	0.0772	0.1037	0.1241	0.1293	0.1235	0.2083
1976	0.0307	0.0035	0.0042	0.0143	0.0184	0.0157	0.0131	0.0144	0.0210	0.0350	0.0557	0.0770	0.1034	0.1249	0.1294	0.1245	0.2149
1977	0.0302	0.0034	0.0042	0.0149	0.0192	0.0163	0.0140	0.0149	0.0205	0.0336	0.0546	0.0768	0.1018	0.1242	0.1321	0.1238	0.2155
1978	0.0294	0.0032	0.0039	0.0147	0.0196	0.0163	0.0144	0.0153	0.0200	0.0320	0.0530	0.0758	0.1010	0.1240	0.1335	0.1246	0.2193
1979	0.0293	0.0031	0.0036	0.0149	0.0203	0.0176	0.0154	0.0157	0.0199	0.0310	0.0516	0.0755	0.0991	0.1236	0.1341	0.1265	0.2190
1980	0.0284	0.0028	0.0033	0.0142	0.0203	0.0178	0.0159	0.0157	0.0194	0.0293	0.0494	0.0745	0.0969	0.1232	0.1348	0.1285	0.2255
1981	0.0274	0.0026	0.0032	0.0127	0.0191	0.0181	0.0167	0.0160	0.0196	0.0291	0.0479	0.0732	0.0978	0.1225	0.1363	0.1299	0.2281
1982	0.0271	0.0026	0.0030	0.0119	0.0180	0.0173	0.0164	0.0165	0.0192	0.0280	0.0460	0.0713	0.0986	0.1233	0.1379	0.1335	0.2294
1983	0.0257	0.0024	0.0029	0.0107	0.0164	0.0165	0.0162	0.0163	0.0195	0.0269	0.0436	0.0701	0.0977	0.1215	0.1395	0.1370	0.2372
1984	0.0246	0.0023	0.0029	0.0102	0.0166	0.0166	0.0168	0.0174	0.0204	0.0268	0.0419	0.0680	0.0980	0.1201	0.1395	0.1375	0.2405
1985	0.0248	0.0022	0.0028	0.0099	0.0159	0.0167	0.0175	0.0188	0.0209	0.0266	0.0402	0.0659	0.0961	0.1187	0.1392	0.1390	0.2447
1986	0.0240	0.0022	0.0028	0.0107	0.0165	0.0178	0.0196	0.0209	0.0217	0.0266	0.0390	0.0627	0.0935	0.1184	0.1381	0.1397	0.2457
1987	0.0235	0.0024	0.0027	0.0102	0.0154	0.0176	0.0202	0.0217	0.0229	0.0272	0.0386	0.0606	0.0915	0.1184	0.1371	0.1406	0.2493
1988	0.0233	0.0023	0.0026	0.0104	0.0151	0.0175	0.0208	0.0226	0.0240	0.0281	0.0376	0.0580	0.0890	0.1173	0.1350	0.1409	0.2553
1989	0.0238	0.0023	0.0026	0.0102	0.0144	0.0180	0.0218	0.0240	0.0257	0.0294	0.0378	0.0566	0.0868	0.1166	0.1333	0.1409	0.2558
1990	0.0232	0.0021	0.0025	0.0105	0.0146	0.0178	0.0218	0.0248	0.0269	0.0298	0.0374	0.0544	0.0846	0.1154	0.1327	0.1418	0.2597
1991	0.0224	0.0020	0.0027	0.0102	0.0145	0.0170	0.0221	0.0255	0.0286	0.0307	0.0372	0.0530	0.0822	0.1127	0.1333	0.1411	0.2650
1992	0.0208	0.0020	0.0026	0.0096	0.0139	0.0162	0.0222	0.0264	0.0298	0.0327	0.0381	0.0518	0.0792	0.1107	0.1336	0.1409	0.2696
1993	0.0198	0.0019	0.0026	0.0097	0.0136	0.0153	0.0224	0.0269	0.0303	0.0328	0.0391	0.0510	0.0756	0.1080	0.1327	0.1408	0.2775
1994	0.0186	0.0019	0.0026	0.0099	0.0132	0.0148	0.0225	0.0276	0.0316	0.0346	0.0407	0.0505	0.0736	0.1050	0.1326	0.1388	0.2815
1995	0.0173	0.0019	0.0026	0.0095	0.0126	0.0142	0.0216	0.0276	0.0323	0.0364	0.0412	0.0502	0.0712	0.1018	0.1318	0.1401	0.2878
1996	0.0166	0.0019	0.0024	0.0092	0.0118	0.0128	0.0183	0.0248	0.0306	0.0371	0.0411	0.0507	0.0707	0.1003	0.1311	0.1438	0.2967
1997	0.0164	0.0018	0.0024	0.0089	0.0114	0.0120	0.0156	0.0218	0.0287	0.0360	0.0426	0.0513	0.0691	0.0987	0.1301	0.1471	0.3062
1998	0.0162	0.0018	0.0023	0.0086	0.0111	0.0112	0.0142	0.0208	0.0286	0.0361	0.0433	0.0527	0.0685	0.0953	0.1289	0.1481	0.3123
1999	0.0156	0.0017	0.0022	0.0084	0.0108	0.0108	0.0135	0.0202	0.0285	0.0369	0.0446	0.0540	0.0675	0.0916	0.1254	0.1487	0.3197
2000	0.0155	0.0016	0.0022	0.0083	0.0115	0.0108	0.0131	0.0198	0.0290	0.0384	0.0470	0.0548	0.0671	0.0883	0.1218	0.1471	0.3238
2001	0.0153	0.0015	0.0021	0.0083	0.0121	0.0111	0.0134	0.0201	0.0291	0.0394	0.0493	0.0557	0.0670	0.0864	0.1179	0.1447	0.3267
2002	0.0153	0.0014	0.0021	0.0083	0.0122	0.0109	0.0132	0.0189	0.0292	0.0398	0.0501	0.0583	0.0681	0.0839	0.1138	0.1414	0.3331
2003	0.0156	0.0014	0.0021	0.0081	0.0125	0.0109	0.0130	0.0181	0.0289	0.0409	0.0513	0.0601	0.0702	0.0835	0.1091	0.1392	0.3351
2004	0.0155	0.0014	0.0020	0.0082	0.0127	0.0115	0.0126	0.0174	0.0282	0.0411	0.0531	0.0622	0.0717	0.0834	0.1053	0.1356	0.3381
2005	0.0152	0.0013	0.0018	0.0081	0.0128	0.0117	0.0124	0.0165	0.0273	0.0404	0.0536	0.0642	0.0721	0.0812	0.1029	0.1320	0.3464
2006	0.0154	0.0013	0.0017	0.0083	0.0135	0.0127	0.0126	0.0168	0.0267	0.0409	0.0551	0.0678	0.0730	0.0822	0.0994	0.1282	0.3445
2007	0.0153	0.0013	0.0018	0.0082	0.0131	0.0122	0.0125	0.0167	0.0270	0.0406	0.0544	0.0660	0.0725	0.0817	0.1012	0.1301	0.3454
Mean	0.0250	0.0025	0.0031	0.0112	0.0153	0.0145	0.0159	0.0191	0.0253	0.0348	0.0480	0.0654	0.0872	0.1092	0.1277	0.1350	0.2608

Table 3.21. Age at Death for All Males: 1-Cumulative Proportion

	Age at Death for All Males (1-Cumulative Proportion)																
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**
1968	0.9528	0.9478	0.9428	0.9297	0.9152	0.9038	0.8924	0.8762	0.8496	0.8086	0.7496	0.6676	0.5644	0.4461	0.3151	0.1877	0.0939
1969	0.9537	0.9487	0.9437	0.9296	0.9136	0.9013	0.8896	0.8734	0.8467	0.8055	0.7472	0.6653	0.5625	0.4438	0.3160	0.1900	0.0950
1970	0.9542	0.9495	0.9445	0.9303	0.9137	0.9012	0.8892	0.8734	0.8472	0.8061	0.7476	0.6655	0.5614	0.4422	0.3156	0.1901	0.0951
1971	0.9578	0.9533	0.9484	0.9338	0.9162	0.9031	0.8910	0.8754	0.8503	0.8103	0.7523	0.6716	0.5677	0.4492	0.3231	0.1961	0.0981
1972	0.9625	0.9584	0.9535	0.9386	0.9209	0.9072	0.8949	0.8798	0.8556	0.8159	0.7576	0.6779	0.5728	0.4527	0.3257	0.1980	0.0990
1973	0.9652	0.9611	0.9561	0.9408	0.9225	0.9080	0.8949	0.8797	0.8564	0.8177	0.7604	0.6816	0.5773	0.4559	0.3292	0.2040	0.1020
1974	0.9665	0.9627	0.9579	0.9427	0.9244	0.9096	0.8963	0.8815	0.8591	0.8211	0.7635	0.6860	0.5820	0.4589	0.3302	0.2071	0.1036
1975	0.9677	0.9641	0.9596	0.9447	0.9257	0.9098	0.8963	0.8814	0.8596	0.8233	0.7660	0.6888	0.5851	0.4610	0.3317	0.2083	0.1041
1976	0.9693	0.9659	0.9616	0.9473	0.9290	0.9133	0.9002	0.8858	0.8648	0.8298	0.7741	0.6971	0.5937	0.4688	0.3394	0.2149	0.1075
1977	0.9698	0.9664	0.9622	0.9473	0.9280	0.9118	0.8977	0.8829	0.8624	0.8288	0.7742	0.6974	0.5956	0.4714	0.3393	0.2155	0.1078
1978	0.9706	0.9674	0.9635	0.9488	0.9292	0.9130	0.8986	0.8833	0.8632	0.8312	0.7782	0.7024	0.6014	0.4774	0.3439	0.2193	0.1096
1979	0.9707	0.9676	0.9640	0.9491	0.9289	0.9112	0.8959	0.8802	0.8603	0.8293	0.7777	0.7022	0.6031	0.4796	0.3455	0.2190	0.1095
1980	0.9716	0.9688	0.9654	0.9512	0.9309	0.9131	0.8972	0.8815	0.8621	0.8328	0.7834	0.7089	0.6120	0.4887	0.3540	0.2255	0.1127
1981	0.9726	0.9700	0.9667	0.9541	0.9350	0.9169	0.9002	0.8843	0.8647	0.8357	0.7878	0.7146	0.6168	0.4943	0.3580	0.2281	0.1141
1982	0.9729	0.9704	0.9673	0.9554	0.9375	0.9201	0.9037	0.8873	0.8681	0.8400	0.7940	0.7227	0.6241	0.5009	0.3630	0.2294	0.1147
1983	0.9743	0.9720	0.9690	0.9584	0.9420	0.9255	0.9093	0.8930	0.8735	0.8466	0.8030	0.7329	0.6352	0.5136	0.3742	0.2372	0.1186
1984	0.9754	0.9730	0.9702	0.9599	0.9434	0.9268	0.9101	0.8926	0.8723	0.8454	0.8036	0.7355	0.6376	0.5175	0.3780	0.2405	0.1202
1985	0.9752	0.9730	0.9702	0.9602	0.9444	0.9277	0.9102	0.8914	0.8705	0.8439	0.8036	0.7378	0.6416	0.5229	0.3838	0.2447	0.1224
1986	0.9760	0.9738	0.9710	0.9603	0.9438	0.9260	0.9063	0.8854	0.8637	0.8371	0.7981	0.7354	0.6419	0.5236	0.3855	0.2457	0.1229
1987	0.9765	0.9741	0.9714	0.9612	0.9458	0.9282	0.9080	0.8863	0.8634	0.8362	0.7976	0.7369	0.6455	0.5271	0.3899	0.2493	0.1247
1988	0.9767	0.9744	0.9718	0.9614	0.9463	0.9288	0.9080	0.8854	0.8613	0.8332	0.7956	0.7376	0.6485	0.5313	0.3962	0.2553	0.1277
1989	0.9762	0.9740	0.9713	0.9612	0.9468	0.9289	0.9071	0.8830	0.8573	0.8279	0.7901	0.7335	0.6467	0.5301	0.3968	0.2558	0.1279
1990	0.9768	0.9747	0.9722	0.9616	0.9470	0.9291	0.9073	0.8825	0.8556	0.8258	0.7884	0.7340	0.6495	0.5341	0.4014	0.2597	0.1298
1991	0.9776	0.9756	0.9729	0.9628	0.9482	0.9313	0.9091	0.8837	0.8551	0.8244	0.7872	0.7342	0.6521	0.5393	0.4060	0.2650	0.1325
1992	0.9792	0.9772	0.9746	0.9650	0.9511	0.9350	0.9128	0.8863	0.8566	0.8239	0.7859	0.7340	0.6548	0.5441	0.4105	0.2696	0.1348
1993	0.9802	0.9783	0.9757	0.9661	0.9525	0.9371	0.9148	0.8879	0.8575	0.8247	0.7856	0.7346	0.6590	0.5510	0.4183	0.2775	0.1387
1994	0.9814	0.9795	0.9769	0.9670	0.9538	0.9390	0.9165	0.8889	0.8573	0.8227	0.7820	0.7315	0.6579	0.5529	0.4203	0.2815	0.1407
1995	0.9827	0.9808	0.9783	0.9688	0.9562	0.9420	0.9204	0.8928	0.8605	0.8242	0.7829	0.7327	0.6615	0.5597	0.4279	0.2878	0.1439
1996	0.9834	0.9815	0.9790	0.9698	0.9580	0.9452	0.9268	0.9020	0.8715	0.8344	0.7933	0.7426	0.6719	0.5715	0.4405	0.2967	0.1483
1997	0.9836	0.9818	0.9794	0.9705	0.9591	0.9471	0.9315	0.9098	0.8811	0.8451	0.8025	0.7511	0.6820	0.5833	0.4533	0.3062	0.1531
1998	0.9838	0.9820	0.9797	0.9711	0.9600	0.9487	0.9346	0.9138	0.8851	0.8490	0.8058	0.7531	0.6846	0.5893	0.4604	0.3123	0.1562
1999	0.9844	0.9827	0.9805	0.9722	0.9614	0.9506	0.9371	0.9169	0.8884	0.8516	0.8069	0.7529	0.6854	0.5938	0.4684	0.3197	0.1598
2000	0.9845	0.9829	0.9807	0.9725	0.9610	0.9502	0.9371	0.9173	0.8883	0.8499	0.8029	0.7482	0.6811	0.5927	0.4709	0.3238	0.1619
2001	0.9847	0.9832	0.9811	0.9728	0.9607	0.9497	0.9363	0.9162	0.8870	0.8476	0.7983	0.7426	0.6757	0.5893	0.4714	0.3267	0.1634
2002	0.9847	0.9833	0.9812	0.9730	0.9607	0.9498	0.9366	0.9177	0.8885	0.8486	0.7986	0.7403	0.6722	0.5883	0.4745	0.3331	0.1665
2003	0.9844	0.9830	0.9809	0.9728	0.9603	0.9494	0.9363	0.9182	0.8892	0.8483	0.7971	0.7370	0.6668	0.5833	0.4742	0.3351	0.1675
2004	0.9845	0.9831	0.9810	0.9728	0.9601	0.9486	0.9360	0.9186	0.8904	0.8493	0.7962	0.7340	0.6624	0.5790	0.4737	0.3381	0.1691
2005	0.9848	0.9835	0.9817	0.9736	0.9608	0.9491	0.9367	0.9202	0.8929	0.8525	0.7989	0.7347	0.6626	0.5814	0.4784	0.3464	0.1732
2006	0.9846	0.9833	0.9816	0.9733	0.9598	0.9471	0.9345	0.9177	0.8909	0.8501	0.7950	0.7272	0.6542	0.5721	0.4727	0.3445	0.1722
2007	0.9847	0.9834	0.9816	0.9734	0.9603	0.9481	0.9356	0.9189	0.8919	0.8513	0.7969	0.7310	0.6584	0.5767	0.4755	0.3454	0.1727
Mean	0.9750	0.9724	0.9693	0.9581	0.9429	0.9283	0.9124	0.8933	0.8680	0.8332	0.7852	0.7199	0.6327	0.5235	0.3958	0.2608	0.1304



All costs reported in red italics are in thousands.

Table 3.22. Premature Mortality: Males (Without ICD-10 Correction)

	Age in 2007 (Males)																
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**
1968									20	1	5	112	175	106	55	31	13
1969									15	2	7	160	233	121	55	29	11
1970								15	2	10	258	414	178	102	51	32	12
1971								18	1	11	354	633	262	108	67	33	16
1972								18	0	13	297	565	288	115	74	35	13
1973								14	2	6	198	479	275	117	54	30	12
1974								11	1	5	186	487	313	146	60	30	10
1975							8	2	3	170	679	479	218	89	45	23	9
1976							8	2	6	118	518	460	194	91	48	22	8
1977							6	1	3	66	253	249	128	55	26	15	7
1978							6	2	3	66	218	225	132	55	23	15	6
1979							16	1	2	95	338	461	263	112	67	31	15
1980						13	4	2	83	326	526	351	181	99	54	26	13
1981						14	4	6	56	292	506	399	203	109	54	27	9
1982						9	0	5	69	266	603	516	242	96	62	26	11
1983						11	0	4	53	253	523	520	284	133	65	29	11
1984						9	0	6	55	229	505	591	339	161	63	30	14
1985					7	0	3	55	259	599	803	581	228	115	57	25	9
1986					13	1	6	69	250	625	907	698	306	127	74	27	9
1987					18	4	5	58	207	484	756	685	298	144	60	31	12
1988					5	0	3	69	233	487	872	780	400	187	69	34	11
1989					13	2	9	87	211	479	759	805	399	168	75	35	10
1990				12	3	4	65	172	394	642	732	448	188	92	49	21	7
1991				16	2	7	64	191	408	617	690	537	203	107	54	24	8
1992				11	1	9	67	228	491	760	979	711	301	135	53	29	9
1993				20	8	6	76	264	510	890	1,157	990	392	143	59	30	8
1994				15	3	8	69	252	500	923	1,080	1,015	499	179	69	26	8
1995			13	4	5	82	314	562	932	1,297	1,180	651	115	58	44	15	6
1996			13	4	8	120	306	521	880	1,170	1,183	778	127	54	42	24	7
1997			13	5	8	125	350	559	910	1,295	1,322	874	164	62	48	19	8
1998			15	5	6	147	411	578	936	1,272	1,449	1,002	162	75	58	20	8
1999			14	3	11	225	599	916	1,293	1,929	2,293	1,790	352	144	114	44	13
2000		19	19	3	10	248	712	893	1,220	1,849	2,212	1,866	345	145	115	35	11
2001		27	26	1	17	323	808	945	1,238	1,830	2,275	1,977	420	160	128	46	12
2002		15	15	3	16	380	972	1,105	1,486	2,092	2,579	2,250	569	214	172	50	15
2003		25	25	3	11	395	1,212	1,236	1,546	2,122	2,693	2,500	699	235	191	71	15
2004		22	22	2	17	526	1,302	1,462	1,524	2,025	2,624	2,618	840	265	217	69	18
2005	23	2	15	402	1,180	1,388	1,435	1,768	2,555	2,690	1,901	896	323	101	44	18	15
2006	32	6	21	567	1,752	2,063	2,055	2,440	3,268	3,518	2,769	1,374	422	169	62	23	16
2007	28	4	18	485	1,466	1,725	1,745	2,104	2,912	3,104	2,335	1,135	372	135	53	21	16
Total	83	118	226	1,560	4,577	7,841	12,639	16,639	24,536	34,627	41,522	34,064	12,031	5,027	2,829	1,200	443
Market Productivity Value (MPV) By Age				$6,333	$23,600	$45,940	$56,933	$62,887	$64,475	$64,553	$63,289	$51,913	$39,271	$15,789	$9,757	$5,478	$3,853
Lost MPV By Age				*$9,877*	*$108,010*	*$360,235*	*$719,559*	*$1,046,360*	*$1,581,946*	*$2,235,272*	*$2,627,890*	*$1,768,365*	*$472,460*	*$79,377*	*$27,600*	*$6,574*	*$1,705*
Lost MPV With Attribution			0.82	*$8,099*	*$88,568*	*$295,392*	*$590,038*	*$858,015*	*$1,297,196*	*$1,832,923*	*$2,154,869*	*$1,450,060*	*$387,417*	*$65,089*	*$22,632*	*$5,391*	*$1,398*
Total Lost MPV			*$9,057,088*														
Household Production Value (HPV) By Age				$4,659	$6,213	$9,058	$11,159	$11,810	$11,538	$11,512	$10,254	$11,352	$11,863	$12,917	$13,291	$12,588	$9,810
Lost HPV By Age				*$7,267*	*$28,433*	*$71,025*	*$141,030*	*$196,510*	*$283,092*	*$398,621*	*$425,777*	*$386,682*	*$142,718*	*$64,939*	*$37,599*	*$15,106*	*$4,342*
Lost HPV With Attribution			0.82	*$5,959*	*$23,315*	*$58,240*	*$115,645*	*$161,138*	*$232,135*	*$326,870*	*$349,137*	*$317,079*	*$117,029*	*$53,250*	*$30,831*	*$12,387*	*$3,560*
Total Lost HPV			*$1,806,575*														
Total Production Value (TPV) By Age				*$17,144*	*$136,443*	*$431,260*	*$860,589*	*$1,242,870*	*$1,865,038*	*$2,633,894*	*$3,053,666*	*$2,155,047*	*$615,178*	*$144,316*	*$65,199*	*$21,680*	*$6,047*
Lost TPV With Attribution			0.82	*$14,058*	*$111,883*	*$353,633*	*$705,683*	*$1,019,154*	*$1,529,331*	*$2,159,793*	*$2,504,006*	*$1,767,138*	*$504,446*	*$118,339*	*$53,463*	*$17,777*	*$4,958*
Total Lost TPV			*$10,863,663*														

All costs reported in red italics are in thousands.

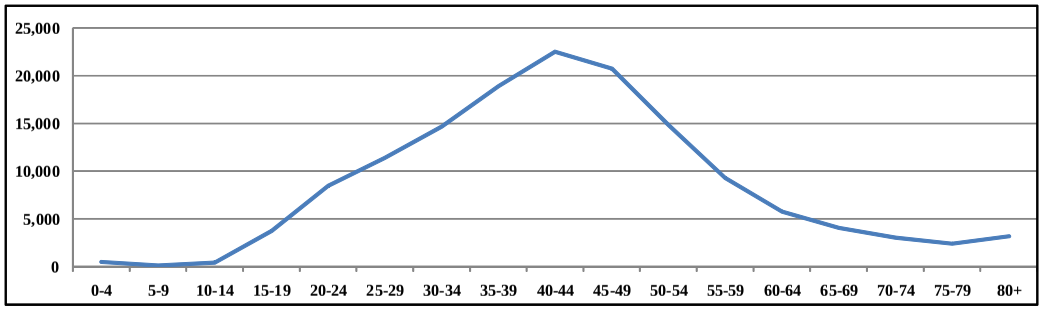
Table 3.23. Premature Mortality: Males (With ICD-10 Correction)

	Age in 2007 (Males)																
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**
1968									24	1	6	135	210	127	66	37	16
1969									18	2	9	192	279	145	66	35	13
1970								18	2	13	309	497	214	123	62	38	15
1971								21	1	13	424	760	315	129	80	39	20
1972								21	0	16	356	678	345	138	89	42	16
1973								17	2	7	238	575	330	140	65	36	15
1974								13	1	6	224	584	376	175	72	36	12
1975							10	2	3	204	814	574	261	107	54	28	10
1976							10	2	7	141	621	552	232	109	57	26	9
1977							8	1	4	80	304	299	154	66	31	18	8
1978							8	2	4	80	261	270	158	66	28	18	8
1979							19	1	2	113	405	553	316	135	80	37	17
1980						15	4	2	99	392	631	421	217	119	65	31	16
1981						17	4	7	67	351	607	479	244	130	65	32	11
1982						11	0	6	82	320	723	619	290	115	74	31	13
1983						13	0	4	64	304	627	624	341	160	78	35	13
1984						11	0	7	66	275	606	710	406	193	75	35	17
1985					8	0	3	66	310	719	963	698	274	137	68	30	11
1986					16	1	8	83	300	750	1,088	837	367	153	89	32	11
1987					22	4	5	69	249	581	907	822	358	173	72	37	15
1988					6	0	3	83	280	584	1,046	936	480	224	83	41	13
1989					16	2	11	105	253	574	911	966	479	202	90	41	12
1990				14	3	4	78	206	473	771	878	537	226	110	58	25	8
1991				20	2	8	76	229	489	740	828	644	243	129	64	28	10
1992				13	1	11	80	273	589	912	1,175	854	361	162	64	35	10
1993				24	9	7	91	316	612	1,068	1,389	1,188	471	171	71	36	9
1994				17	3	9	82	303	600	1,108	1,296	1,217	599	214	83	31	9
1995			15	5	6	98	377	674	1,118	1,557	1,416	781	138	69	53	18	7
1996			15	5	9	144	367	626	1,056	1,404	1,419	934	152	65	50	28	8
1997			15	6	9	150	420	670	1,092	1,554	1,587	1,049	196	74	58	22	10
1998			18	6	7	176	493	694	1,123	1,526	1,739	1,203	195	90	70	24	10
1999			14	3	11	225	599	916	1,293	1,929	2,293	1,790	352	144	114	44	13
2000		19	19	3	10	248	712	893	1,220	1,849	2,212	1,866	345	145	115	35	11
2001		27	26	1	17	323	808	945	1,238	1,830	2,275	1,977	420	160	128	46	12
2002		15	15	3	16	380	972	1,105	1,486	2,092	2,579	2,250	569	214	172	50	15
2003		25	25	3	11	395	1,212	1,236	1,546	2,122	2,693	2,500	699	235	191	71	15
2004		22	22	2	17	526	1,302	1,462	1,524	2,025	2,624	2,618	840	265	217	69	18
2005	23	2	15	402	1,180	1,388	1,435	1,768	2,555	2,690	1,901	896	323	101	44	18	15
2006	32	6	21	567	1,752	2,063	2,055	2,440	3,268	3,518	2,769	1,374	422	169	62	23	16
2007	28	4	18	485	1,466	1,725	1,745	2,104	2,912	3,104	2,335	1,135	372	135	53	21	16
Total	83	118	236	1,578	4,596	7,955	12,998	17,393	26,035	37,321	45,490	37,595	13,569	5,720	3,176	1,364	505
Market Productivity Value (MPV) By Age				$6,333	$23,600	$45,940	$56,933	$62,887	$64,475	$64,553	$63,289	$51,913	$39,271	$15,789	$9,757	$5,478	$3,853
Lost MPV By Age				*$9,992*	*$108,472*	*$365,466*	*$740,043*	*$1,093,777*	*$1,678,588*	*$2,409,157*	*$2,879,043*	*$1,951,690*	*$532,847*	*$90,304*	*$30,982*	*$7,475*	*$1,945*
Lost MPV With Attribution			0.82	*$8,193*	*$88,947*	*$299,682*	*$606,835*	*$896,897*	*$1,376,442*	*$1,975,509*	*$2,360,815*	*$1,600,385*	*$436,935*	*$74,050*	*$25,406*	*$6,130*	*$1,595*
Total Lost MPV			*$9,757,821*														
Household Production Value (HPV) By Age				$4,659	$6,213	$9,058	$11,159	$11,810	$11,538	$11,512	$10,254	$11,352	$11,863	$12,917	$13,291	$12,588	$9,810
Lost HPV By Age				*$7,352*	*$28,555*	*$72,056*	*$145,045*	*$205,415*	*$300,386*	*$429,631*	*$466,469*	*$426,768*	*$160,960*	*$73,879*	*$42,206*	*$17,176*	*$4,953*
Lost HPV With Attribution			0.82	*$6,028*	*$23,415*	*$59,086*	*$118,937*	*$168,441*	*$246,317*	*$352,297*	*$382,505*	*$349,950*	*$131,987*	*$60,580*	*$34,609*	*$14,085*	*$4,061*
Total Lost HPV			*$1,952,298*														
Total Production Value (TPV) By Age				*$17,343*	*$137,026*	*$437,523*	*$885,087*	*$1,299,192*	*$1,978,974*	*$2,838,788*	*$3,345,512*	*$2,378,458*	*$693,807*	*$164,183*	*$73,189*	*$24,651*	*$6,898*
Lost TPV With Attribution			0.82	*$14,221*	*$112,362*	*$358,769*	*$725,772*	*$1,065,337*	*$1,622,759*	*$2,327,806*	*$2,743,320*	*$1,950,336*	*$568,922*	*$134,630*	*$60,015*	*$20,214*	*$5,656*
Total Lost TPV			*$11,710,119*														

All costs reported in red italics are in thousands.

Table 3.24. Age at Death for Females: Drug-Induced (Without ICD-10 Correction)

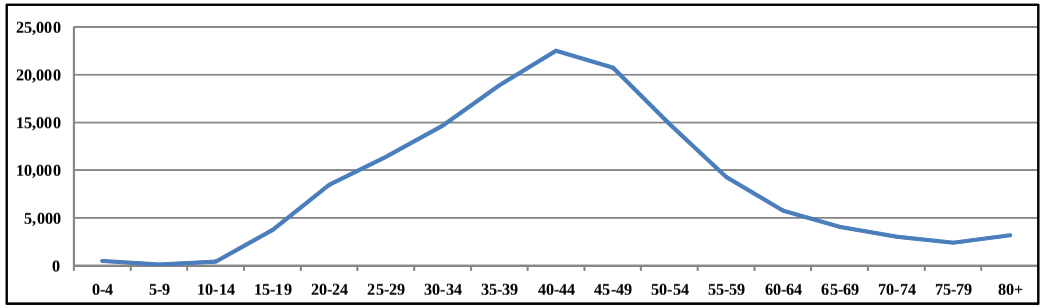
	Age at Death for Females (Drug-Induced and Drug-Related)																	
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**	**Total**
1968	11	1	3	59	102	128	143	174	215	217	213	196	146	90	68	57	44	1,867
1969	13	0	10	114	157	180	135	182	205	243	237	195	152	121	89	62	42	2,137
1970	16	2	10	143	226	175	151	168	191	224	220	198	176	118	90	55	52	2,215
1971	27	3	11	182	296	207	154	194	230	248	218	174	142	117	104	47	51	2,405
1972	10	4	22	118	264	258	164	154	184	222	172	190	184	110	62	46	68	2,232
1973	16	2	8	104	262	188	159	130	167	175	191	149	124	103	83	64	48	1,973
1974	10	1	9	121	252	222	141	133	143	171	174	141	123	102	77	57	38	1,915
1975	8	3	4	88	280	249	158	103	160	168	136	133	97	98	65	45	48	1,843
1976	6	1	7	89	263	235	160	105	139	132	120	109	108	92	64	52	46	1,728
1977	11	2	5	50	203	176	134	98	116	121	115	125	93	89	72	54	48	1,512
1978	12	0	3	43	152	193	133	104	101	131	103	113	68	77	55	39	40	1,367
1979	24	1	9	83	244	299	287	260	196	215	235	178	166	111	91	55	65	2,519
1980	11	4	4	69	216	280	273	222	200	173	183	174	128	102	67	66	65	2,237
1981	9	5	9	83	171	255	270	197	192	196	180	233	130	101	71	50	53	2,205
1982	16	1	4	80	185	281	280	246	186	164	193	161	130	88	79	53	80	2,227
1983	10	4	14	56	173	283	293	238	195	168	181	152	119	88	87	75	81	2,217
1984	6	1	1	63	149	261	323	240	199	184	161	141	134	89	79	51	85	2,167
1985	6	2	19	62	151	257	364	262	193	188	128	129	106	89	75	72	72	2,175
1986	10	2	7	75	146	273	390	360	237	187	160	129	134	95	72	77	61	2,415
1987	5	2	3	86	124	267	393	354	242	151	165	142	101	103	73	67	83	2,361
1988	4	2	14	87	138	256	382	398	282	186	131	127	145	87	80	55	88	2,462
1989	10	3	16	89	117	278	385	371	307	204	128	141	94	95	58	69	83	2,448
1990	9	2	16	59	108	212	308	354	278	190	147	149	95	104	76	60	77	2,244
1991	10	3	13	61	119	186	314	390	309	227	137	129	122	93	63	54	71	2,301
1992	14	2	15	68	96	196	357	429	349	252	159	98	107	97	78	59	86	2,462
1993	14	6	17	55	124	203	388	467	429	258	176	121	101	81	70	49	97	2,656
1994	11	4	14	59	107	225	384	482	452	294	193	143	105	69	67	52	103	2,764
1995	13	0	9	53	124	186	374	495	504	322	189	102	84	61	61	45	78	2,700
1996	13	4	9	52	124	230	375	526	552	406	206	125	97	68	70	58	85	3,000
1997	7	7	8	57	102	236	361	538	616	423	261	154	91	77	64	57	72	3,131
1998	10	6	5	66	124	224	384	613	703	462	315	178	89	77	66	53	95	3,470
1999	9	4	4	87	194	323	577	945	1,059	840	490	209	123	86	68	81	106	5,205
2000	8	3	13	100	200	327	552	937	1,185	942	510	294	123	79	73	44	98	5,488
2001	6	3	8	111	250	327	580	1,030	1,311	1,060	702	288	159	85	76	53	97	6,146
2002	22	1	9	133	344	403	693	1,145	1,628	1,523	862	424	213	134	90	74	127	7,825
2003	16	5	7	154	396	471	741	1,212	1,717	1,654	1,054	519	234	138	86	92	115	8,611
2004	15	7	23	165	425	531	770	1,210	1,890	1,892	1,228	623	281	140	93	82	121	9,496
2005	11	3	15	127	381	502	658	991	1,506	1,645	1,194	572	263	136	86	66	113	8,269
2006	27	3	17	199	544	767	842	1,319	2,005	2,324	1,772	945	353	194	96	72	159	11,638
2007	19	3	16	163	463	635	750	1,155	1,756	1,985	1,483	759	308	165	91	69	136	9,954
Total	485	112	410	3,713	8,496	11,385	14,680	18,931	22,529	20,767	14,822	9,262	5,748	4,049	3,035	2,388	3,177	143,987



All costs reported in red italics are in thousands.

Table 3.25. Age at Death for Females: Drug-Induced (With ICD-10 Correction)

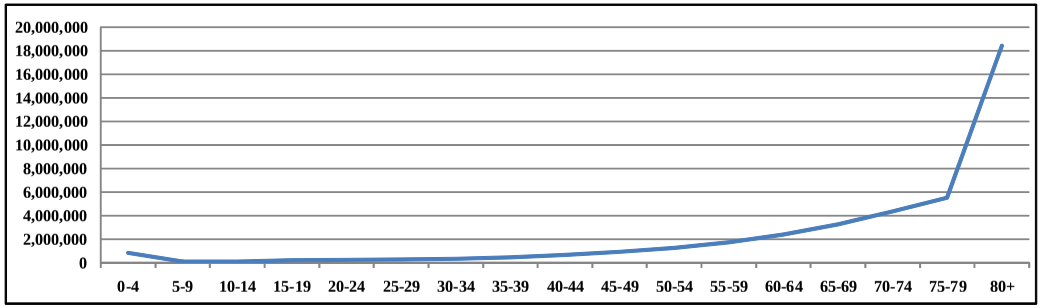
	Age at Death for Females (Drug-Induced and Drug-Related)																	
Year	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+	Total
1968	13	1	4	71	122	154	172	209	258	260	256	235	175	108	82	68	53	2,240
1969	16	0	12	137	188	216	162	218	246	292	284	234	182	145	107	74	50	2,564
1970	19	2	12	172	271	210	181	202	229	269	264	238	211	142	108	66	62	2,658
1971	32	4	13	218	355	248	185	233	276	298	262	209	170	140	125	56	61	2,886
1972	12	5	26	142	317	310	197	185	221	266	206	228	221	132	74	55	82	2,678
1973	19	2	10	125	314	226	191	156	200	210	229	179	149	124	100	77	58	2,368
1974	12	1	11	145	302	266	169	160	172	205	209	169	148	122	92	68	46	2,298
1975	10	4	5	106	336	299	190	124	192	202	163	160	116	118	78	54	58	2,212
1976	7	1	8	107	316	282	192	126	167	158	144	131	130	110	77	62	55	2,074
1977	13	2	6	60	244	211	161	118	139	145	138	150	112	107	86	65	58	1,814
1978	14	0	4	52	182	232	160	125	121	157	124	136	82	92	66	47	48	1,640
1979	29	1	11	100	293	359	344	312	235	258	282	214	199	133	109	66	78	3,023
1980	13	5	5	83	259	336	328	266	240	208	220	209	154	122	80	79	78	2,684
1981	11	6	11	100	205	306	324	236	230	235	216	280	156	121	85	60	64	2,646
1982	19	1	5	96	222	337	336	295	223	197	232	193	156	106	95	64	96	2,672
1983	12	5	17	67	208	340	352	286	234	202	217	182	143	106	104	90	97	2,660
1984	7	1	1	76	179	313	388	288	239	221	193	169	161	107	95	61	102	2,600
1985	7	2	23	74	181	308	437	314	232	226	154	155	127	107	90	86	86	2,610
1986	12	2	8	90	175	328	468	432	284	224	192	155	161	114	86	92	73	2,898
1987	6	2	4	103	149	320	472	425	290	181	198	170	121	124	88	80	100	2,833
1988	5	2	17	104	166	307	458	478	338	223	157	152	174	104	96	66	106	2,954
1989	12	4	19	107	140	334	462	445	368	245	154	169	113	114	70	83	100	2,938
1990	11	2	19	71	130	254	370	425	334	228	176	179	114	125	91	72	92	2,693
1991	12	4	16	73	143	223	377	468	371	272	164	155	146	112	76	65	85	2,761
1992	17	2	18	82	115	235	428	515	419	302	191	118	128	116	94	71	103	2,954
1993	17	7	20	66	149	244	466	560	515	310	211	145	121	97	84	59	116	3,187
1994	13	5	17	71	128	270	461	578	542	353	232	172	126	83	80	62	124	3,317
1995	16	0	11	64	149	223	449	594	605	386	227	122	101	73	73	54	94	3,240
1996	16	5	11	62	149	276	450	631	662	487	247	150	116	82	84	70	102	3,600
1997	8	8	10	68	122	283	433	646	739	508	313	185	109	92	77	68	86	3,757
1998	12	7	6	79	149	269	461	736	844	554	378	214	107	92	79	64	114	4,164
1999	9	4	4	87	194	323	577	945	1,059	840	490	209	123	86	68	81	106	5,205
2000	8	3	13	100	200	327	552	937	1,185	942	510	294	123	79	73	44	98	5,488
2001	6	3	8	111	250	327	580	1,030	1,311	1,060	702	288	159	85	76	53	97	6,146
2002	22	1	9	133	344	403	693	1,145	1,628	1,523	862	424	213	134	90	74	127	7,825
2003	16	5	7	154	396	471	741	1,212	1,717	1,654	1,054	519	234	138	86	92	115	8,611
2004	15	7	23	165	425	531	770	1,210	1,890	1,892	1,228	623	281	140	93	82	121	9,496
2005	11	3	15	127	381	502	658	991	1,506	1,645	1,194	572	263	136	86	66	113	8,269
2006	27	3	17	199	544	767	842	1,319	2,005	2,324	1,772	945	353	194	96	72	159	11,638
2007	19	3	16	163	463	635	750	1,155	1,756	1,985	1,483	759	308	165	91	69	136	9,954
Total	555	128	470	4,208	9,555	12,804	16,383	20,728	24,223	22,147	15,927	10,187	6,486	4,627	3,490	2,739	3,598	158,258



All costs reported in red italics are in thousands.

Table 3.26. Age at Death for All Females

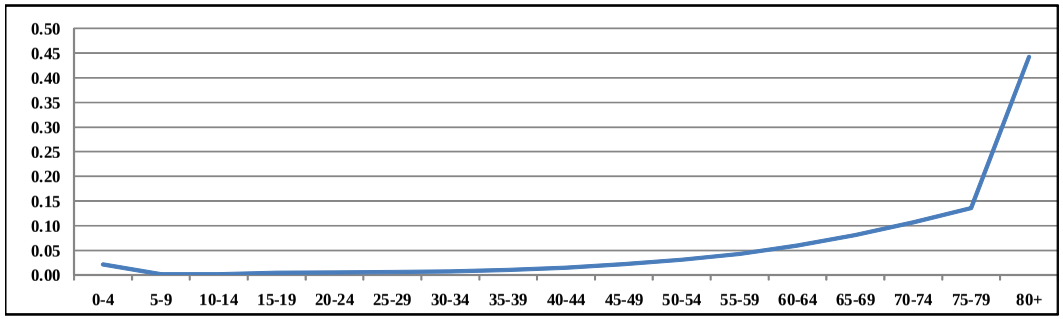
	Age at Death for All Females																	
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**	**Total**
1968	37,998	3,674	3,016	5,436	5,751	5,586	6,862	10,939	17,941	26,617	35,439	46,940	60,047	79,964	102,646	124,223	269,508	842,587
1969	37,291	3,566	3,135	5,825	6,093	5,744	7,045	10,701	17,615	26,208	34,868	46,644	59,295	79,354	101,224	122,482	273,715	840,805
1970	36,928	3,360	3,022	5,833	6,378	6,023	6,898	10,457	16,973	26,522	35,713	47,267	60,495	79,101	101,579	122,408	273,960	842,917
1971	33,873	3,316	3,118	6,066	6,586	6,144	7,041	10,028	16,622	25,867	35,544	46,601	61,393	77,400	101,040	123,620	286,335	850,594
1972	30,344	3,218	3,108	6,108	6,646	6,314	7,194	9,802	16,098	25,600	35,340	46,924	62,150	81,022	103,258	126,476	298,620	868,222
1973	28,313	3,065	2,992	6,207	6,617	6,347	7,275	9,762	15,409	24,989	35,824	47,277	62,630	80,505	102,257	125,915	311,304	876,688
1974	26,782	2,626	2,872	5,774	6,347	6,409	7,108	9,082	14,593	23,438	34,964	45,561	62,203	79,612	101,235	121,574	313,055	863,235
1975	25,732	2,480	2,573	5,657	6,425	6,350	6,925	8,715	13,591	22,227	33,865	45,290	60,442	78,217	98,241	118,578	307,269	842,577
1976	24,684	2,423	2,437	5,585	6,292	6,492	6,818	8,472	12,884	21,354	33,429	45,436	61,053	79,212	97,468	119,670	324,404	858,113
1977	23,743	2,291	2,411	5,889	6,511	6,369	7,016	8,518	12,675	20,417	32,639	45,323	60,674	79,720	98,045	117,590	324,105	853,936
1978	23,475	2,305	2,245	5,753	6,775	6,592	7,056	8,564	12,430	19,915	31,957	45,571	60,946	80,563	100,299	119,798	338,847	873,091
1979	23,264	2,121	2,120	5,553	6,603	6,513	7,136	8,813	11,898	18,444	30,715	44,868	59,942	80,091	100,252	119,702	341,582	869,617
1980	23,190	2,106	2,060	5,553	6,635	6,727	7,528	8,860	12,004	18,352	30,429	46,023	62,078	83,939	105,543	125,528	369,044	915,599
1981	22,518	1,839	1,940	4,970	6,423	6,745	7,810	8,861	11,630	17,728	29,523	45,549	62,589	83,692	105,259	123,837	373,651	914,564
1982	21,713	1,850	1,874	4,555	6,223	6,590	7,445	8,945	11,737	17,040	28,140	44,501	63,521	83,563	106,843	126,822	377,959	919,321
1983	21,003	1,742	1,776	4,382	5,918	6,607	7,366	9,047	11,951	16,864	27,722	44,721	64,595	84,820	110,126	130,823	398,594	948,057
1984	20,497	1,672	1,839	4,310	5,906	6,514	7,694	9,578	12,454	16,961	26,500	43,845	65,049	85,641	111,794	133,863	409,541	963,658
1985	20,218	1,747	1,717	4,264	5,570	6,543	8,001	9,910	12,470	17,122	26,290	43,041	65,908	86,594	113,251	137,611	428,999	989,256
1986	19,941	1,660	1,657	4,463	5,684	6,905	8,453	10,491	13,034	17,091	25,814	41,189	65,667	88,154	114,595	139,348	437,747	1,001,893
1987	19,872	1,679	1,513	4,382	5,468	7,107	8,902	10,873	13,296	17,524	25,601	40,553	64,535	89,119	114,164	141,037	450,553	1,016,178
1988	20,159	1,790	1,674	4,365	5,315	7,185	9,017	11,207	13,866	18,112	25,500	40,227	64,314	89,718	115,197	144,034	471,586	1,043,266
1989	20,516	1,817	1,699	4,322	5,061	7,027	9,393	11,143	14,501	18,180	25,365	38,554	62,068	89,383	113,714	144,290	470,202	1,037,235
1990	19,503	1,641	1,688	4,070	4,851	6,820	9,270	11,530	14,656	18,801	25,259	37,395	60,814	89,125	113,034	143,378	474,175	1,036,010
1991	18,982	1,643	1,589	3,974	4,987	6,522	9,460	12,050	15,583	19,310	25,425	37,286	59,527	88,242	114,870	143,696	485,768	1,048,914
1992	18,089	1,526	1,623	3,689	4,706	6,306	9,331	12,485	15,886	19,941	25,908	36,584	57,712	86,989	117,056	143,621	492,885	1,054,337
1993	17,632	1,729	1,748	3,860	4,768	6,359	9,666	13,173	16,538	21,222	27,240	37,274	57,588	88,054	120,422	149,220	531,242	1,107,735
1994	16,895	1,569	1,740	3,857	4,678	6,270	9,883	13,767	17,051	22,338	28,206	37,269	55,829	86,522	121,201	149,037	541,143	1,117,255
1995	15,780	1,580	1,824	4,044	4,491	6,141	9,833	14,183	18,031	23,051	29,107	37,872	55,538	85,057	122,080	151,249	560,240	1,140,101
1996	15,163	1,587	1,760	4,002	4,189	5,942	9,206	13,737	18,079	24,023	29,532	37,827	54,926	83,523	121,489	153,970	573,211	1,152,166
1997	14,668	1,617	1,715	4,022	4,270	5,540	8,355	13,136	18,213	23,691	30,711	39,036	54,268	81,110	119,544	156,110	585,253	1,161,259
1998	14,963	1,501	1,624	3,905	4,065	5,291	8,064	13,247	18,577	23,749	31,121	39,836	53,953	79,724	120,217	158,171	603,117	1,181,125
1999	14,372	1,514	1,610	4,033	4,278	5,196	7,657	13,156	19,055	24,867	32,566	41,537	54,922	79,296	118,657	163,628	630,481	1,216,825
2000	14,309	1,420	1,627	3,894	4,408	5,097	7,539	12,937	19,663	25,769	34,302	42,422	55,334	77,955	116,157	164,512	639,517	1,226,862
2001	14,133	1,376	1,574	3,812	4,531	5,256	7,765	13,209	20,391	27,176	36,171	43,816	55,583	76,257	113,401	162,503	647,064	1,234,018
2002	14,168	1,327	1,653	3,991	4,695	5,051	7,647	12,759	20,868	28,412	36,369	45,704	56,471	75,161	111,116	160,646	659,012	1,245,050
2003	14,296	1,269	1,564	3,921	5,055	5,245	7,530	12,370	20,757	29,087	37,139	47,248	59,019	74,631	107,718	158,001	662,781	1,247,631
2004	14,392	1,254	1,603	4,051	4,844	5,253	7,326	11,499	20,271	29,462	37,190	47,859	59,010	73,689	103,391	150,576	645,536	1,217,206
2005	11,802	1,067	1,175	3,197	4,081	4,344	6,046	9,508	16,684	25,036	32,443	41,321	50,418	62,027	85,708	125,533	564,772	1,045,162
2006	14,674	1,191	1,355	3,853	5,031	5,752	7,088	11,407	19,585	30,323	39,697	51,779	60,866	73,295	98,908	143,636	657,284	1,225,724
2007	13,238	1,129	1,265	3,525	4,556	5,048	6,567	10,458	18,135	27,680	36,070	46,550	55,642	67,661	92,308	134,585	611,028	1,135,443
Total	839,113	78,287	79,535	184,952	217,711	244,266	314,216	437,379	633,695	900,510	1,255,637	1,730,520	2,389,014	3,247,702	4,335,307	5,521,301	18,415,089	40,824,232



All costs reported in red italics are in thousands.

Table 3.27. Age at Death for All Females: Proportion

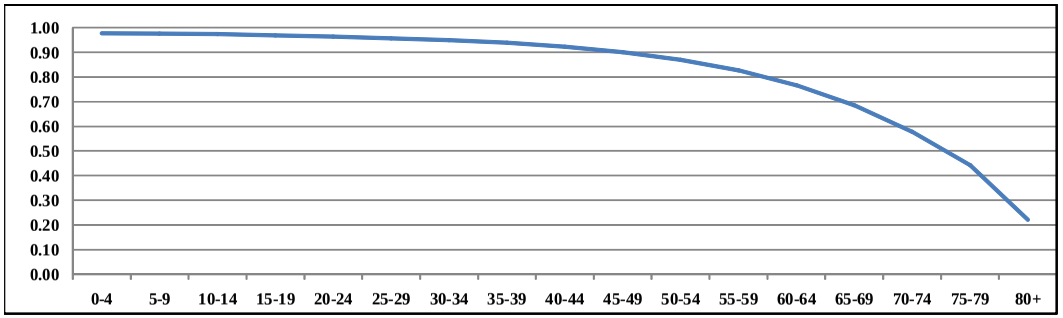
	Age at Death for All Females (Proportion)																
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**
1968	0.0451	0.0044	0.0036	0.0065	0.0068	0.0066	0.0081	0.0130	0.0213	0.0316	0.0421	0.0557	0.0713	0.0949	0.1218	0.1474	0.3199
1969	0.0444	0.0042	0.0037	0.0069	0.0072	0.0068	0.0084	0.0127	0.0210	0.0312	0.0415	0.0555	0.0705	0.0944	0.1204	0.1457	0.3255
1970	0.0438	0.0040	0.0036	0.0069	0.0076	0.0071	0.0082	0.0124	0.0201	0.0315	0.0424	0.0561	0.0718	0.0938	0.1205	0.1452	0.3250
1971	0.0398	0.0039	0.0037	0.0071	0.0077	0.0072	0.0083	0.0118	0.0195	0.0304	0.0418	0.0548	0.0722	0.0910	0.1188	0.1453	0.3366
1972	0.0349	0.0037	0.0036	0.0070	0.0077	0.0073	0.0083	0.0113	0.0185	0.0295	0.0407	0.0540	0.0716	0.0933	0.1189	0.1457	0.3439
1973	0.0323	0.0035	0.0034	0.0071	0.0075	0.0072	0.0083	0.0111	0.0176	0.0285	0.0409	0.0539	0.0714	0.0918	0.1166	0.1436	0.3551
1974	0.0310	0.0030	0.0033	0.0067	0.0074	0.0074	0.0082	0.0105	0.0169	0.0272	0.0405	0.0528	0.0721	0.0922	0.1173	0.1408	0.3627
1975	0.0305	0.0029	0.0031	0.0067	0.0076	0.0075	0.0082	0.0103	0.0161	0.0264	0.0402	0.0538	0.0717	0.0928	0.1166	0.1407	0.3647
1976	0.0288	0.0028	0.0028	0.0065	0.0073	0.0076	0.0079	0.0099	0.0150	0.0249	0.0390	0.0529	0.0711	0.0923	0.1136	0.1395	0.3780
1977	0.0278	0.0027	0.0028	0.0069	0.0076	0.0075	0.0082	0.0100	0.0148	0.0239	0.0382	0.0531	0.0711	0.0934	0.1148	0.1377	0.3795
1978	0.0269	0.0026	0.0026	0.0066	0.0078	0.0076	0.0081	0.0098	0.0142	0.0228	0.0366	0.0522	0.0698	0.0923	0.1149	0.1372	0.3881
1979	0.0268	0.0024	0.0024	0.0064	0.0076	0.0075	0.0082	0.0101	0.0137	0.0212	0.0353	0.0516	0.0689	0.0921	0.1153	0.1376	0.3928
1980	0.0253	0.0023	0.0022	0.0061	0.0072	0.0073	0.0082	0.0097	0.0131	0.0200	0.0332	0.0503	0.0678	0.0917	0.1153	0.1371	0.4031
1981	0.0246	0.0020	0.0021	0.0054	0.0070	0.0074	0.0085	0.0097	0.0127	0.0194	0.0323	0.0498	0.0684	0.0915	0.1151	0.1354	0.4086
1982	0.0236	0.0020	0.0020	0.0050	0.0068	0.0072	0.0081	0.0097	0.0128	0.0185	0.0306	0.0484	0.0691	0.0909	0.1162	0.1380	0.4111
1983	0.0222	0.0018	0.0019	0.0046	0.0062	0.0070	0.0078	0.0095	0.0126	0.0178	0.0292	0.0472	0.0681	0.0895	0.1162	0.1380	0.4204
1984	0.0213	0.0017	0.0019	0.0045	0.0061	0.0068	0.0080	0.0099	0.0129	0.0176	0.0275	0.0455	0.0675	0.0889	0.1160	0.1389	0.4250
1985	0.0204	0.0018	0.0017	0.0043	0.0056	0.0066	0.0081	0.0100	0.0126	0.0173	0.0266	0.0435	0.0666	0.0875	0.1145	0.1391	0.4337
1986	0.0199	0.0017	0.0017	0.0045	0.0057	0.0069	0.0084	0.0105	0.0130	0.0171	0.0258	0.0411	0.0655	0.0880	0.1144	0.1391	0.4369
1987	0.0196	0.0017	0.0015	0.0043	0.0054	0.0070	0.0088	0.0107	0.0131	0.0172	0.0252	0.0399	0.0635	0.0877	0.1123	0.1388	0.4434
1988	0.0193	0.0017	0.0016	0.0042	0.0051	0.0069	0.0086	0.0107	0.0133	0.0174	0.0244	0.0386	0.0616	0.0860	0.1104	0.1381	0.4520
1989	0.0198	0.0018	0.0016	0.0042	0.0049	0.0068	0.0091	0.0107	0.0140	0.0175	0.0245	0.0372	0.0598	0.0862	0.1096	0.1391	0.4533
1990	0.0188	0.0016	0.0016	0.0039	0.0047	0.0066	0.0089	0.0111	0.0141	0.0181	0.0244	0.0361	0.0587	0.0860	0.1091	0.1384	0.4577
1991	0.0181	0.0016	0.0015	0.0038	0.0048	0.0062	0.0090	0.0115	0.0149	0.0184	0.0242	0.0355	0.0568	0.0841	0.1095	0.1370	0.4631
1992	0.0172	0.0014	0.0015	0.0035	0.0045	0.0060	0.0089	0.0118	0.0151	0.0189	0.0246	0.0347	0.0547	0.0825	0.1110	0.1362	0.4675
1993	0.0159	0.0016	0.0016	0.0035	0.0043	0.0057	0.0087	0.0119	0.0149	0.0192	0.0246	0.0336	0.0520	0.0795	0.1087	0.1347	0.4796
1994	0.0151	0.0014	0.0016	0.0035	0.0042	0.0056	0.0088	0.0123	0.0153	0.0200	0.0252	0.0334	0.0500	0.0774	0.1085	0.1334	0.4844
1995	0.0138	0.0014	0.0016	0.0035	0.0039	0.0054	0.0086	0.0124	0.0158	0.0202	0.0255	0.0332	0.0487	0.0746	0.1071	0.1327	0.4914
1996	0.0132	0.0014	0.0015	0.0035	0.0036	0.0052	0.0080	0.0119	0.0157	0.0209	0.0256	0.0328	0.0477	0.0725	0.1054	0.1336	0.4975
1997	0.0126	0.0014	0.0015	0.0035	0.0037	0.0048	0.0072	0.0113	0.0157	0.0204	0.0264	0.0336	0.0467	0.0698	0.1029	0.1344	0.5040
1998	0.0127	0.0013	0.0014	0.0033	0.0034	0.0045	0.0068	0.0112	0.0157	0.0201	0.0263	0.0337	0.0457	0.0675	0.1018	0.1339	0.5106
1999	0.0118	0.0012	0.0013	0.0033	0.0035	0.0043	0.0063	0.0108	0.0157	0.0204	0.0268	0.0341	0.0451	0.0652	0.0975	0.1345	0.5181
2000	0.0117	0.0012	0.0013	0.0032	0.0036	0.0042	0.0061	0.0105	0.0160	0.0210	0.0280	0.0346	0.0451	0.0635	0.0947	0.1341	0.5213
2001	0.0115	0.0011	0.0013	0.0031	0.0037	0.0043	0.0063	0.0107	0.0165	0.0220	0.0293	0.0355	0.0450	0.0618	0.0919	0.1317	0.5244
2002	0.0114	0.0011	0.0013	0.0032	0.0038	0.0041	0.0061	0.0102	0.0168	0.0228	0.0292	0.0367	0.0454	0.0604	0.0892	0.1290	0.5293
2003	0.0115	0.0010	0.0013	0.0031	0.0041	0.0042	0.0060	0.0099	0.0166	0.0233	0.0298	0.0379	0.0473	0.0598	0.0863	0.1266	0.5312
2004	0.0118	0.0010	0.0013	0.0033	0.0040	0.0043	0.0060	0.0094	0.0167	0.0242	0.0306	0.0393	0.0485	0.0605	0.0849	0.1237	0.5303
2005	0.0113	0.0010	0.0011	0.0031	0.0039	0.0042	0.0058	0.0091	0.0160	0.0240	0.0310	0.0395	0.0482	0.0593	0.0820	0.1201	0.5404
2006	0.0120	0.0010	0.0011	0.0031	0.0041	0.0047	0.0058	0.0093	0.0160	0.0247	0.0324	0.0422	0.0497	0.0598	0.0807	0.1172	0.5362
2007	0.0116	0.0010	0.0011	0.0031	0.0040	0.0044	0.0058	0.0092	0.0160	0.0243	0.0317	0.0409	0.0489	0.0596	0.0813	0.1186	0.5383
Mean	0.0217	0.0020	0.0020	0.0047	0.0055	0.0061	0.0078	0.0107	0.0156	0.0223	0.0314	0.0434	0.0599	0.0812	0.1076	0.1359	0.4421



All costs reported in red italics are in thousands.

Table 3.28. Age at Death for All Females: 1-Cumulative Proportion

	Age at Death for All Females (1-Cumulative Proportion)																
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**
1968	0.9549	0.9505	0.9470	0.9405	0.9337	0.9271	0.9189	0.9059	0.8846	0.8530	0.8110	0.7553	0.6840	0.5891	0.4673	0.3199	0.1599
1969	0.9556	0.9514	0.9477	0.9408	0.9335	0.9267	0.9183	0.9056	0.8846	0.8534	0.8120	0.7565	0.6860	0.5916	0.4712	0.3255	0.1628
1970	0.9562	0.9522	0.9486	0.9417	0.9341	0.9270	0.9188	0.9064	0.8863	0.8548	0.8124	0.7564	0.6846	0.5907	0.4702	0.3250	0.1625
1971	0.9602	0.9563	0.9526	0.9455	0.9377	0.9305	0.9222	0.9104	0.8909	0.8605	0.8187	0.7639	0.6917	0.6008	0.4820	0.3366	0.1683
1972	0.9651	0.9613	0.9578	0.9507	0.9431	0.9358	0.9275	0.9162	0.8977	0.8682	0.8275	0.7734	0.7019	0.6085	0.4896	0.3439	0.1720
1973	0.9677	0.9642	0.9608	0.9537	0.9462	0.9389	0.9306	0.9195	0.9019	0.8734	0.8326	0.7786	0.7072	0.6154	0.4987	0.3551	0.1775
1974	0.9690	0.9659	0.9626	0.9559	0.9486	0.9411	0.9329	0.9224	0.9055	0.8783	0.8378	0.7850	0.7130	0.6208	0.5035	0.3627	0.1813
1975	0.9695	0.9665	0.9635	0.9567	0.9491	0.9416	0.9334	0.9230	0.9069	0.8805	0.8403	0.7866	0.7148	0.6220	0.5054	0.3647	0.1823
1976	0.9712	0.9684	0.9656	0.9591	0.9517	0.9442	0.9362	0.9263	0.9113	0.8864	0.8475	0.7945	0.7234	0.6311	0.5175	0.3780	0.1890
1977	0.9722	0.9695	0.9667	0.9598	0.9522	0.9447	0.9365	0.9265	0.9117	0.8878	0.8495	0.7965	0.7254	0.6321	0.5172	0.3795	0.1898
1978	0.9731	0.9705	0.9679	0.9613	0.9536	0.9460	0.9379	0.9281	0.9139	0.8911	0.8545	0.8023	0.7325	0.6402	0.5253	0.3881	0.1941
1979	0.9732	0.9708	0.9684	0.9620	0.9544	0.9469	0.9387	0.9286	0.9149	0.8937	0.8584	0.8068	0.7378	0.6457	0.5304	0.3928	0.1964
1980	0.9747	0.9724	0.9701	0.9641	0.9568	0.9495	0.9412	0.9316	0.9185	0.8984	0.8652	0.8149	0.7471	0.6554	0.5402	0.4031	0.2015
1981	0.9754	0.9734	0.9712	0.9658	0.9588	0.9514	0.9429	0.9332	0.9205	0.9011	0.8688	0.8190	0.7506	0.6591	0.5440	0.4086	0.2043
1982	0.9764	0.9744	0.9723	0.9674	0.9606	0.9534	0.9453	0.9356	0.9228	0.9043	0.8737	0.8253	0.7562	0.6653	0.5491	0.4111	0.2056
1983	0.9778	0.9760	0.9741	0.9695	0.9633	0.9563	0.9485	0.9390	0.9264	0.9086	0.8794	0.8322	0.7641	0.6746	0.5584	0.4204	0.2102
1984	0.9787	0.9770	0.9751	0.9706	0.9645	0.9577	0.9497	0.9398	0.9269	0.9093	0.8818	0.8363	0.7688	0.6799	0.5639	0.4250	0.2125
1985	0.9796	0.9778	0.9761	0.9718	0.9661	0.9595	0.9514	0.9414	0.9288	0.9115	0.8849	0.8414	0.7748	0.6872	0.5728	0.4337	0.2168
1986	0.9801	0.9784	0.9768	0.9723	0.9667	0.9598	0.9513	0.9409	0.9278	0.9108	0.8850	0.8439	0.7784	0.6904	0.5760	0.4369	0.2185
1987	0.9804	0.9788	0.9773	0.9730	0.9676	0.9606	0.9519	0.9412	0.9281	0.9108	0.8856	0.8457	0.7822	0.6945	0.5822	0.4434	0.2217
1988	0.9807	0.9790	0.9774	0.9732	0.9681	0.9612	0.9525	0.9418	0.9285	0.9112	0.8867	0.8482	0.7865	0.7005	0.5901	0.4520	0.2260
1989	0.9802	0.9785	0.9768	0.9727	0.9678	0.9610	0.9520	0.9412	0.9272	0.9097	0.8852	0.8481	0.7882	0.7021	0.5924	0.4533	0.2267
1990	0.9812	0.9796	0.9780	0.9740	0.9694	0.9628	0.9538	0.9427	0.9285	0.9104	0.8860	0.8499	0.7912	0.7052	0.5961	0.4577	0.2288
1991	0.9819	0.9803	0.9788	0.9750	0.9703	0.9641	0.9550	0.9436	0.9287	0.9103	0.8860	0.8505	0.7938	0.7096	0.6001	0.4631	0.2316
1992	0.9828	0.9814	0.9799	0.9764	0.9719	0.9659	0.9571	0.9452	0.9302	0.9112	0.8867	0.8520	0.7972	0.7147	0.6037	0.4675	0.2337
1993	0.9841	0.9825	0.9809	0.9775	0.9732	0.9674	0.9587	0.9468	0.9319	0.9127	0.8881	0.8545	0.8025	0.7230	0.6143	0.4796	0.2398
1994	0.9849	0.9835	0.9819	0.9785	0.9743	0.9687	0.9598	0.9475	0.9322	0.9122	0.8870	0.8536	0.8037	0.7262	0.6177	0.4844	0.2422
1995	0.9862	0.9848	0.9832	0.9796	0.9757	0.9703	0.9617	0.9492	0.9334	0.9132	0.8877	0.8545	0.8057	0.7311	0.6241	0.4914	0.2457
1996	0.9868	0.9855	0.9839	0.9805	0.9768	0.9717	0.9637	0.9518	0.9361	0.9152	0.8896	0.8568	0.8091	0.7366	0.6311	0.4975	0.2488
1997	0.9874	0.9860	0.9845	0.9810	0.9774	0.9726	0.9654	0.9541	0.9384	0.9180	0.8916	0.8579	0.8112	0.7414	0.6384	0.5040	0.2520
1998	0.9873	0.9861	0.9847	0.9814	0.9779	0.9735	0.9666	0.9554	0.9397	0.9196	0.8932	0.8595	0.8138	0.7463	0.6445	0.5106	0.2553
1999	0.9882	0.9869	0.9856	0.9823	0.9788	0.9745	0.9682	0.9574	0.9418	0.9213	0.8946	0.8604	0.8153	0.7501	0.6526	0.5181	0.2591
2000	0.9883	0.9872	0.9859	0.9827	0.9791	0.9749	0.9688	0.9582	0.9422	0.9212	0.8933	0.8587	0.8136	0.7500	0.6554	0.5213	0.2606
2001	0.9885	0.9874	0.9862	0.9831	0.9794	0.9751	0.9688	0.9581	0.9416	0.9196	0.8903	0.8548	0.8097	0.7479	0.6560	0.5244	0.2622
2002	0.9886	0.9876	0.9862	0.9830	0.9793	0.9752	0.9691	0.9588	0.9420	0.9192	0.8900	0.8533	0.8079	0.7476	0.6583	0.5293	0.2647
2003	0.9885	0.9875	0.9863	0.9831	0.9791	0.9749	0.9688	0.9589	0.9423	0.9190	0.8892	0.8513	0.8040	0.7442	0.6579	0.5312	0.2656
2004	0.9882	0.9871	0.9858	0.9825	0.9785	0.9742	0.9682	0.9587	0.9421	0.9179	0.8873	0.8480	0.7995	0.7390	0.6540	0.5303	0.2652
2005	0.9887	0.9877	0.9866	0.9835	0.9796	0.9754	0.9697	0.9606	0.9446	0.9206	0.8896	0.8501	0.8018	0.7425	0.6605	0.5404	0.2702
2006	0.9880	0.9871	0.9860	0.9828	0.9787	0.9740	0.9682	0.9589	0.9429	0.9182	0.8858	0.8436	0.7939	0.7341	0.6534	0.5362	0.2681
2007	0.9884	0.9874	0.9863	0.9832	0.9792	0.9747	0.9689	0.9597	0.9438	0.9194	0.8877	0.8468	0.7979	0.7383	0.6570	0.5383	0.2692
Mean	0.9783	0.9762	0.9742	0.9695	0.9639	0.9578	0.9500	0.9393	0.9237	0.9014	0.8701	0.8267	0.7668	0.6856	0.5781	0.4421	0.2211



All costs reported in red italics are in thousands.

Table 3.29. Premature Mortality: Females (Without ICD-10 Correction)

	Age in 2007 (Females)																
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**
1968									10	1	2	45	70	75	67	56	34
1969									12	0	8	86	108	106	64	59	33
1970								15	2	9	116	171	120	89	79	62	36
1971								25	3	9	149	226	143	93	94	77	42
1972								9	4	19	98	204	181	100	75	63	38
1973								15	2	7	87	204	133	98	65	59	31
1974								9	1	8	101	198	158	88	67	52	31
1975							7	3	4	77	235	196	113	64	81	61	25
1976							6	1	6	79	223	187	116	66	72	50	23
1977							10	2	5	44	172	140	97	62	60	46	22
1978							11	0	3	38	130	155	97	67	53	51	20
1979							23	1	8	74	209	241	212	168	104	84	46
1980						10	4	4	63	194	242	222	166	131	93	74	35
1981						9	5	8	76	154	222	221	148	127	107	74	48
1982						15	1	4	74	167	246	231	186	124	90	79	33
1983						10	4	13	52	157	249	244	182	132	94	76	32
1984						6	1	1	58	135	230	270	185	135	104	68	30
1985					6	2	18	58	140	234	322	220	150	129	73	56	23
1986					10	2	7	71	135	249	345	304	184	129	92	56	29
1987					5	2	3	81	115	243	348	299	189	105	96	63	22
1988					4	2	13	82	128	233	339	338	222	130	77	57	33
1989					10	3	15	84	108	253	341	315	242	143	76	64	21
1990				9	2	15	56	102	197	280	314	236	150	104	89	43	24
1991				10	3	13	58	112	173	286	346	263	180	97	77	57	22
1992				14	2	14	65	91	182	325	380	297	201	114	59	50	23
1993				14	6	16	53	117	189	354	415	367	207	127	74	48	19
1994				11	4	14	57	101	210	350	428	386	236	140	88	51	17
1995			13	0	9	51	119	177	349	452	447	275	82	61	52	30	15
1996			13	4	9	51	119	219	351	481	491	348	101	71	61	34	17
1997			7	7	8	55	98	225	339	494	549	363	125	67	58	39	16
1998			10	6	5	64	120	214	361	564	628	397	145	66	57	39	17
1999			9	4	4	85	188	309	543	871	947	723	170	92	80	45	18
2000		8	8	3	13	97	194	313	520	863	1,059	809	239	92	81	41	19
2001		6	6	3	8	108	242	313	546	947	1,167	906	233	119	104	45	20
2002		22	22	1	9	130	333	386	653	1,053	1,449	1,300	343	159	140	71	24
2003		16	16	5	7	150	384	452	698	1,114	1,527	1,408	417	174	154	73	23
2004		15	15	7	23	161	411	509	725	1,111	1,677	1,604	498	208	184	74	25
2005	11	3	15	125	373	490	638	952	1,423	1,514	1,062	486	211	101	57	36	31
2006	27	3	17	196	532	747	815	1,265	1,891	2,134	1,570	797	280	142	63	39	43
2007	19	3	16	160	453	618	727	1,108	1,657	1,824	1,316	642	246	122	60	37	37
Total	56	75	165	577	1,502	2,940	4,806	7,451	12,015	17,404	20,185	16,324	7,466	4,419	3,322	2,240	1,095
Market Productivity Value (MPV) By Age				$5,057	$16,835	$28,336	$29,707	$33,543	$35,955	$37,045	$36,861	$30,497	$21,322	$6,528	$2,919	$1,271	$646
Lost MPV By Age				*$2,916*	*$25,283*	*$83,320*	*$142,765*	*$249,917*	*$432,006*	*$644,738*	*$744,050*	*$497,838*	*$159,198*	*$28,845*	*$9,697*	*$2,848*	*$707*
Lost MPV With Attribution			0.82	*$2,391*	*$20,732*	*$68,322*	*$117,067*	*$204,932*	*$354,245*	*$528,685*	*$610,121*	*$408,227*	*$130,542*	*$23,653*	*$7,951*	*$2,335*	*$580*
Total Lost MPV			*$2,479,784*														
Household Production Value (HPV) By Age				$7,598	$12,801	$18,827	$22,337	$22,150	$20,588	$17,911	$16,370	$17,036	$17,702	$18,408	$17,550	$16,510	$12,862
Lost HPV By Age				*$4,381*	*$19,225*	*$55,360*	*$107,346*	*$165,033*	*$247,365*	*$311,728*	*$330,426*	*$278,098*	*$132,169*	*$81,339*	*$58,300*	*$36,989*	*$14,086*
Lost HPV With Attribution			0.82	*$3,593*	*$15,764*	*$45,395*	*$88,024*	*$135,327*	*$202,839*	*$255,617*	*$270,949*	*$228,041*	*$108,379*	*$66,698*	*$47,806*	*$30,331*	*$11,550*
Total Lost HPV			*$1,510,312*														
Total Production Value (TPV) By Age				*$7,297*	*$44,507*	*$138,680*	*$250,111*	*$414,950*	*$679,370*	*$956,466*	*$1,074,476*	*$775,937*	*$291,367*	*$110,184*	*$67,996*	*$39,837*	*$14,793*
Lost TPV With Attribution			0.82	*$5,984*	*$36,496*	*$113,717*	*$205,091*	*$340,259*	*$557,084*	*$784,302*	*$881,070*	*$636,268*	*$238,921*	*$90,351*	*$55,757*	*$32,666*	*$12,130*
Total Lost TPV			*$3,990,096*														

All costs reported in red italics are in thousands.

Table 3.30. Premature Mortality: Females (With ICD-10 Correction)

	Age in 2007 (Females)																
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**
1968									12	1	3	53	84	90	80	67	41
1969									14	0	10	103	129	128	76	71	40
1970								17	2	10	139	205	144	107	95	74	44
1971								29	3	11	179	271	172	111	112	93	50
1972								11	4	23	117	245	217	120	90	76	46
1973								18	2	8	104	245	160	117	78	71	37
1974								11	1	9	122	237	190	105	80	62	37
1975							9	3	4	93	282	235	136	77	97	74	30
1976							7	1	8	95	267	224	139	80	86	60	27
1977							12	2	5	53	207	168	117	74	72	55	26
1978							14	0	3	46	156	186	117	80	64	61	24
1979							27	1	10	89	251	289	254	201	125	101	55
1980						13	5	4	76	233	291	267	199	157	112	89	42
1981						10	6	10	92	185	266	265	177	152	128	88	57
1982						18	1	4	89	201	295	277	223	148	108	95	40
1983						11	5	16	62	189	299	293	218	158	113	91	38
1984						7	1	1	70	163	276	324	221	162	125	82	36
1985					7	2	22	70	168	281	387	265	179	155	88	67	28
1986					12	2	8	85	163	298	414	365	221	155	111	68	35
1987					6	2	3	97	138	292	418	359	227	126	115	76	27
1988					5	2	16	98	154	280	406	405	266	156	93	69	39
1989					12	3	18	101	130	303	409	378	290	172	91	77	26
1990				11	2	18	68	122	236	336	376	284	180	124	107	52	29
1991				12	3	15	70	135	207	343	415	315	216	117	93	68	26
1992				16	2	17	78	109	219	390	456	357	241	136	71	60	27
1993				16	7	20	63	141	227	425	498	440	248	153	89	58	23
1994				13	5	16	68	122	252	420	513	463	284	168	106	61	20
1995			15	0	11	62	143	212	419	542	537	330	99	74	63	36	18
1996			15	5	11	61	143	263	421	578	589	417	121	86	73	41	21
1997			8	8	9	67	118	270	407	593	659	435	150	81	70	47	19
1998			12	7	6	77	144	257	433	676	754	477	174	80	69	47	20
1999			9	4	4	85	188	309	543	871	947	723	170	92	80	45	18
2000		8	8	3	13	97	194	313	520	863	1,059	809	239	92	81	41	19
2001		6	6	3	8	108	242	313	546	947	1,167	906	233	119	104	45	20
2002		22	22	1	9	130	333	386	653	1,053	1,449	1,300	343	159	140	71	24
2003		16	16	5	7	150	384	452	698	1,114	1,527	1,408	417	174	154	73	23
2004		15	15	7	23	161	411	509	725	1,111	1,677	1,604	498	208	184	74	25
2005	11	3	15	125	373	490	638	952	1,423	1,514	1,062	486	211	101	57	36	31
2006	27	3	17	196	532	747	815	1,265	1,891	2,134	1,570	797	280	142	63	39	43
2007	19	3	16	160	453	618	727	1,108	1,657	1,824	1,316	642	246	122	60	37	37
Total	56	75	173	591	1,518	3,011	4,980	7,819	12,687	18,599	21,868	17,854	8,432	5,061	3,802	2,596	1,267

Market Productivity Value (MPV) By Age		$5,057	$16,835	$28,336	$29,707	$33,543	$35,955	$37,045	$36,861	$30,497	$21,322	$6,528	$2,919	$1,271	$646
Lost MPV By Age		*$2,990*	*$25,554*	*$85,327*	*$147,955*	*$262,277*	*$456,163*	*$688,996*	*$806,063*	*$544,493*	*$179,790*	*$33,035*	*$11,097*	*$3,300*	*$818*
Lost MPV With Attribution	0.82	*$2,452*	*$20,954*	*$69,968*	*$121,323*	*$215,067*	*$374,053*	*$564,977*	*$660,972*	*$446,484*	*$147,428*	*$27,089*	*$9,100*	*$2,706*	*$671*
Total Lost MPV	*$2,663,245*														
Household Production Value (HPV) By Age		$7,598	$12,801	$18,827	$22,337	$22,150	$20,588	$17,911	$16,370	$17,036	$17,702	$18,408	$17,550	$16,510	$12,862
Lost HPV By Age		*$4,493*	*$19,431*	*$56,694*	*$111,248*	*$173,195*	*$261,197*	*$333,126*	*$357,966*	*$304,160*	*$149,265*	*$93,154*	*$66,722*	*$42,868*	*$16,292*
Lost HPV With Attribution	0.82	*$3,684*	*$15,934*	*$46,489*	*$91,224*	*$142,020*	*$214,181*	*$273,163*	*$293,532*	*$249,412*	*$122,397*	*$76,386*	*$54,712*	*$35,152*	*$13,359*
Total Lost HPV	*$1,631,644*														
Total Production Value (TPV) By Age		*$7,483*	*$44,985*	*$142,021*	*$259,203*	*$435,472*	*$717,359*	*$1,022,122*	*$1,164,029*	*$848,653*	*$329,055*	*$126,189*	*$77,819*	*$46,168*	*$17,110*
Lost TPV With Attribution	0.82	*$6,136*	*$36,888*	*$116,457*	*$212,547*	*$357,087*	*$588,235*	*$838,140*	*$954,504*	*$695,896*	*$269,825*	*$103,475*	*$63,812*	*$37,858*	*$14,030*
Total Lost TPV	*$4,294,889*														

All costs reported in red italics are in thousands.

All costs reported in red italics are in thousands.

Appendix C.

Refer to Chapter 3

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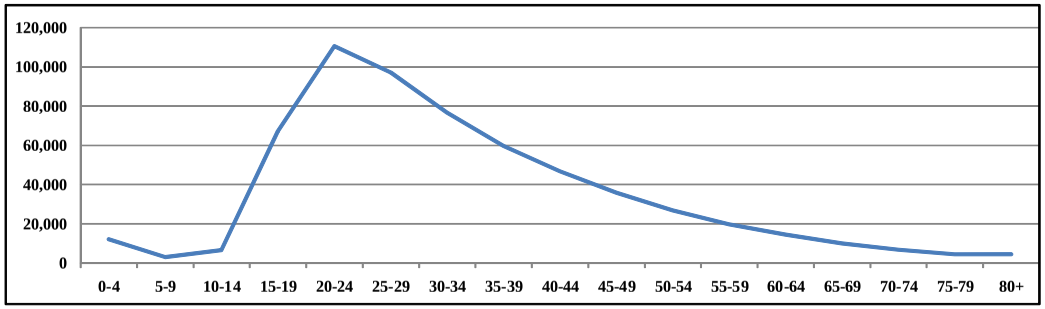
All costs reported in red italics are in thousands.

Table 3.31. Age at Death for Males: Drug-Induced

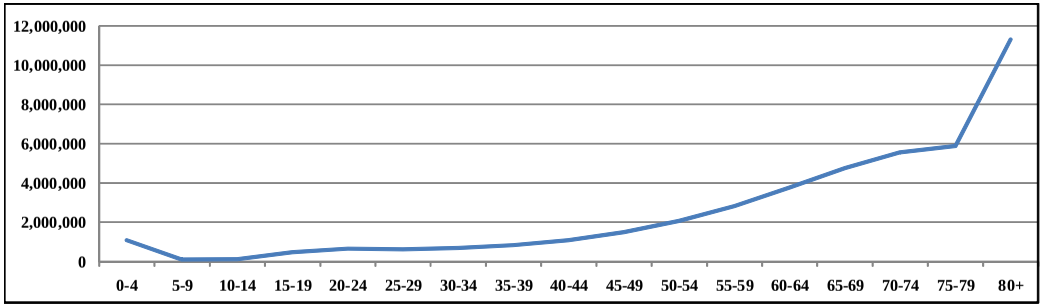
	Age at Death for Males (Homicide)																	
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**	**Total**
1968	189	64	112	941	1,590	1,511	1,322	1,212	1,126	955	686	529	369	263	144	86	71	11,170
1969	218	65	104	1,072	1,813	1,665	1,349	1,269	1,185	923	666	557	362	273	147	71	61	11,800
1970	210	61	153	1,173	2,032	1,805	1,481	1,273	1,174	1,052	835	613	454	291	169	83	101	12,960
1971	255	79	139	1,240	2,407	2,112	1,664	1,453	1,333	1,106	842	596	489	304	172	118	85	14,394
1972	230	44	160	1,316	2,632	2,302	1,742	1,546	1,460	1,196	922	696	506	250	176	84	100	15,362
1973	267	82	177	1,350	2,517	2,385	1,877	1,471	1,308	1,150	917	719	492	333	214	123	88	15,470
1974	241	76	169	1,488	2,725	2,491	1,984	1,603	1,349	1,207	1,047	664	562	332	221	138	103	16,400
1975	290	60	148	1,455	2,696	2,551	1,940	1,505	1,299	1,206	992	699	546	369	231	130	120	16,237
1976	242	83	157	1,347	2,455	2,448	1,718	1,416	1,222	1,042	824	651	481	323	225	120	99	14,853
1977	281	97	138	1,388	2,529	2,457	1,839	1,469	1,192	967	845	628	513	309	217	124	113	15,106
1978	254	90	160	1,368	2,775	2,629	1,936	1,503	1,197	975	870	627	472	317	194	105	104	15,576
1979	258	91	145	1,640	3,078	2,969	2,296	1,625	1,244	1,082	901	710	466	344	200	124	118	17,291
1980	294	76	145	1,715	3,454	3,325	2,559	1,778	1,314	1,103	927	705	495	395	227	142	141	18,795
1981	298	84	168	1,594	3,217	3,217	2,619	1,720	1,284	1,136	969	725	503	320	198	143	159	18,354
1982	339	81	122	1,527	2,941	3,100	2,446	1,743	1,212	948	887	610	491	324	231	135	147	17,284
1983	273	80	140	1,244	2,646	2,686	2,188	1,541	1,181	813	692	574	462	280	197	131	133	15,261
1984	307	71	149	1,148	2,452	2,664	2,083	1,580	1,108	840	678	541	435	256	211	120	133	14,776
1985	291	84	161	1,232	2,480	2,607	2,163	1,612	1,145	802	593	540	408	290	188	125	102	14,823
1986	374	67	148	1,411	2,887	2,956	2,432	1,779	1,156	841	632	538	357	292	191	134	133	16,328
1987	318	78	166	1,441	2,746	2,710	2,227	1,712	1,122	777	582	535	370	288	196	153	144	15,565
1988	370	98	169	1,737	2,909	2,921	2,401	1,755	1,212	795	521	463	367	270	199	150	136	16,473
1989	383	89	209	2,017	3,045	3,014	2,538	1,813	1,269	835	607	420	382	274	197	137	141	17,370
1990	385	70	230	2,552	3,615	3,345	2,653	2,061	1,391	871	588	417	381	269	185	135	132	19,280
1991	437	71	266	2,884	3,989	3,326	2,800	2,091	1,444	968	633	464	391	286	205	140	129	20,524
1992	422	78	295	2,848	3,987	3,094	2,656	1,983	1,414	947	592	418	344	254	191	123	152	19,798
1993	462	105	303	3,051	4,068	2,975	2,620	2,008	1,396	954	616	406	321	247	183	112	123	19,950
1994	440	74	278	3,090	3,860	2,886	2,486	1,991	1,437	881	579	385	296	244	170	127	132	19,356
1995	426	86	287	2,752	3,414	2,575	2,184	1,662	1,310	876	551	411	302	235	147	102	100	17,420
1996	381	94	216	2,486	3,120	2,328	1,905	1,622	1,212	816	555	381	274	216	139	99	109	15,953
1997	389	93	199	2,227	3,023	2,233	1,738	1,478	1,159	861	507	351	266	195	152	113	127	15,111
1998	395	82	172	1,944	2,709	2,014	1,497	1,351	1,134	749	518	340	230	172	128	111	93	13,639
1999	265	73	126	1,523	2,143	1,709	1,259	1,114	917	656	424	281	185	164	111	94	94	11,138
2000	275	58	126	1,399	2,321	1,699	1,268	1,072	958	666	436	285	185	132	117	77	98	11,172
2001	299	57	97	1,412	2,525	1,821	1,288	1,102	910	721	473	292	183	156	109	83	94	11,622
2002	286	50	98	1,395	2,564	1,891	1,362	1,140	954	736	496	348	206	136	110	78	83	11,933
2003	290	63	137	1,678	2,938	2,173	1,538	1,202	1,054	867	581	339	207	150	123	105	107	13,552
2004	259	54	133	1,621	2,733	2,221	1,517	1,170	1,024	823	623	374	245	173	123	80	96	13,269
2005	227	51	108	1,519	2,492	1,943	1,394	950	902	725	518	298	204	114	112	70	76	11,703
2006	325	70	166	1,980	2,984	2,347	1,604	1,188	1,030	923	653	436	273	140	117	89	82	14,407
2007	276	61	137	1,750	2,738	2,145	1,499	1,069	966	824	586	367	239	127	115	80	79	13,055
Total	12145	2929	6576	67,205	110,511	97,105	76,573	59,563	46,738	35,791	26,778	19,566	14,475	9,980	6,767	4,414	4,359	601,475



All costs reported in red italics are in thousands.

Table 3.32. Age at Death for All Males

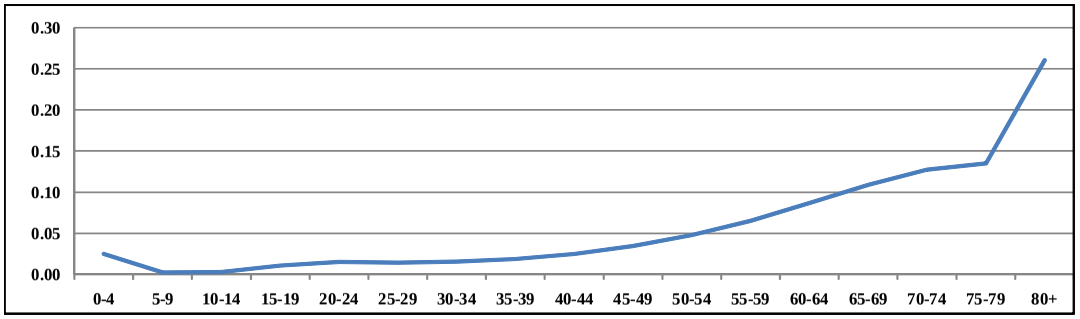
	Age at Death for All Males																	
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**	**Total**
1968	51,303	5,401	5,451	14,231	15,722	12,469	12,332	17,635	28,915	44,531	64,175	89,119	112,170	128,517	142,419	138,375	204,045	1,086,810
1969	50,072	5,335	5,395	15,316	17,188	13,305	12,630	17,503	28,891	44,520	63,028	88,422	111,143	128,187	138,099	136,136	205,349	1,080,519
1970	49,408	5,072	5,454	15,267	17,952	13,500	12,936	17,062	28,292	44,372	63,140	88,617	112,317	128,688	136,559	135,499	205,189	1,079,324
1971	45,468	4,871	5,324	15,746	18,990	14,071	13,042	16,868	26,962	43,137	62,574	86,970	112,017	127,754	135,982	136,908	211,440	1,078,124
1972	41,094	4,512	5,434	16,280	19,480	14,996	13,578	16,516	26,516	43,584	63,936	87,458	115,356	131,772	139,398	140,058	217,272	1,097,240
1973	38,242	4,487	5,501	16,798	20,059	15,940	14,315	16,691	25,606	42,459	62,975	86,454	114,545	133,242	139,121	137,500	223,954	1,097,889
1974	35,977	4,037	5,173	16,305	19,610	15,849	14,288	15,867	24,029	40,747	61,798	83,189	111,553	131,992	138,059	132,058	222,192	1,072,723
1975	33,981	3,740	4,760	15,699	19,973	16,766	14,193	15,626	22,937	38,249	60,260	81,250	109,103	130,551	135,990	129,925	219,106	1,052,109
1976	32,307	3,641	4,458	15,074	19,353	16,516	13,789	15,159	22,138	36,823	58,679	81,113	108,865	131,561	136,302	131,161	226,377	1,053,316
1977	31,666	3,571	4,363	15,642	20,140	17,025	14,711	15,581	21,502	35,178	57,177	80,460	106,679	130,075	138,346	129,674	225,805	1,047,595
1978	31,033	3,380	4,149	15,544	20,680	17,193	15,184	16,207	21,163	33,830	56,019	80,100	106,753	131,053	141,062	131,708	231,706	1,056,764
1979	30,645	3,210	3,781	15,625	21,193	18,431	16,105	16,379	20,836	32,479	53,964	78,990	103,675	129,304	140,292	132,364	229,213	1,046,486
1980	30,633	3,012	3,606	15,295	21,858	19,170	17,095	16,923	20,890	31,599	53,162	80,247	104,386	132,717	145,139	138,375	242,845	1,076,952
1981	29,198	2,816	3,452	13,511	20,329	19,260	17,800	17,013	20,847	30,972	51,026	78,058	104,300	130,586	145,278	138,478	243,225	1,066,149
1982	28,626	2,741	3,217	12,553	19,015	18,348	17,350	17,406	20,341	29,644	48,688	75,479	104,276	130,395	145,880	141,271	242,729	1,057,959
1983	27,544	2,557	3,141	11,437	17,595	17,690	17,354	17,548	20,975	28,824	46,817	75,277	104,902	130,446	149,702	147,034	254,662	1,073,505
1984	26,566	2,494	3,118	11,001	17,843	17,855	18,089	18,775	21,970	28,924	45,147	73,347	105,608	129,460	150,398	148,289	259,234	1,078,118
1985	27,282	2,442	3,075	10,908	17,458	18,321	19,231	20,638	23,001	29,264	44,237	72,387	105,680	130,476	152,982	152,841	269,019	1,099,242
1986	26,541	2,452	3,090	11,851	18,191	19,710	21,713	23,102	23,987	29,455	43,078	69,344	103,331	130,844	152,664	154,461	271,670	1,105,484
1987	26,105	2,646	2,956	11,330	17,105	19,526	22,394	24,124	25,387	30,200	42,853	67,253	101,501	131,378	152,173	155,997	276,647	1,109,575
1988	26,292	2,586	2,919	11,747	16,968	19,769	23,437	25,529	27,088	31,710	42,433	65,368	100,385	132,199	152,229	158,850	287,827	1,127,336
1989	26,533	2,523	2,939	11,338	16,016	20,054	24,334	26,836	28,678	32,821	42,240	63,169	96,849	130,122	148,806	157,290	285,510	1,116,058
1990	25,892	2,375	2,779	11,742	16,333	19,907	24,362	27,713	29,950	33,230	41,669	60,697	94,320	128,655	147,957	158,102	289,629	1,115,312
1991	25,115	2,303	2,992	11,423	16,313	19,093	24,838	28,624	32,127	34,493	41,799	59,510	92,306	126,663	149,757	158,511	297,701	1,123,568
1992	23,412	2,256	2,874	10,810	15,575	18,171	24,979	29,725	33,455	36,727	42,795	58,285	89,070	124,515	150,198	158,441	303,084	1,124,372
1993	23,007	2,224	3,018	11,233	15,848	17,848	26,023	31,287	35,298	38,195	45,511	59,305	87,979	125,710	154,438	163,892	322,883	1,163,699
1994	21,706	2,206	3,019	11,510	15,419	17,234	26,152	32,114	36,802	40,335	47,364	58,853	85,730	122,268	154,469	161,603	327,826	1,164,610
1995	20,281	2,231	3,022	11,134	14,813	16,686	25,347	32,423	37,888	42,713	48,437	59,006	83,645	119,636	154,816	164,555	338,051	1,174,684
1996	19,380	2,216	2,823	10,756	13,760	14,953	21,373	28,910	35,608	43,193	47,948	59,140	82,396	116,928	152,770	167,574	345,781	1,165,509
1997	18,965	2,061	2,741	10,333	13,154	13,865	18,023	25,171	33,163	41,570	49,286	59,332	79,895	114,063	150,350	170,005	353,935	1,155,912
1998	18,761	2,052	2,666	10,010	12,922	13,009	16,431	24,116	33,208	41,834	50,140	61,047	79,451	110,429	149,427	171,632	362,029	1,159,164
1999	18,375	1,979	2,544	9,840	12,758	12,665	15,834	23,779	33,544	43,427	52,516	63,600	79,481	107,794	147,664	175,053	376,314	1,177,167
2000	18,294	1,864	2,563	9,768	13,526	12,754	15,392	23,378	34,198	45,262	55,423	64,610	79,111	104,200	143,716	173,528	381,873	1,179,460
2001	18,166	1,749	2,461	9,819	14,326	13,140	15,862	23,841	34,534	46,685	58,423	65,968	79,342	102,342	139,705	171,507	387,154	1,185,024
2002	18,316	1,720	2,514	9,924	14,694	13,072	15,891	22,723	35,078	47,833	60,152	69,966	81,723	100,781	136,670	169,843	399,983	1,200,883
2003	18,781	1,654	2,530	9,777	15,071	13,174	15,689	21,853	34,837	49,282	61,722	72,379	84,476	100,542	131,369	167,571	403,457	1,204,164
2004	18,408	1,656	2,373	9,732	15,032	13,669	14,894	20,621	33,342	48,691	62,837	73,595	84,834	98,695	124,670	160,500	400,279	1,183,828
2005	15,451	1,279	1,873	8,241	13,004	11,879	12,649	16,790	27,775	41,066	54,494	65,256	73,356	82,621	104,693	134,281	352,226	1,016,934
2006	18,581	1,560	2,084	9,982	16,262	15,294	15,150	20,259	32,200	49,232	66,394	81,667	87,891	98,970	119,715	154,446	414,982	1,204,669
2007	17,016	1,420	1,979	9,112	14,633	13,587	13,900	18,525	29,988	45,149	60,444	73,462	80,624	90,796	112,204	144,364	383,604	1,110,802
Total	1,087,407	110,911	135,632	484,532	661,528	632,177	694,789	838,315	1,103,958	1,507,090	2,074,316	2,824,287	3,780,400	4,756,131	5,569,264	5,885,296	11,312,203	43,458,236



All costs reported in red italics are in thousands.

Table 3.33. Age at Death for All Males: Proportion

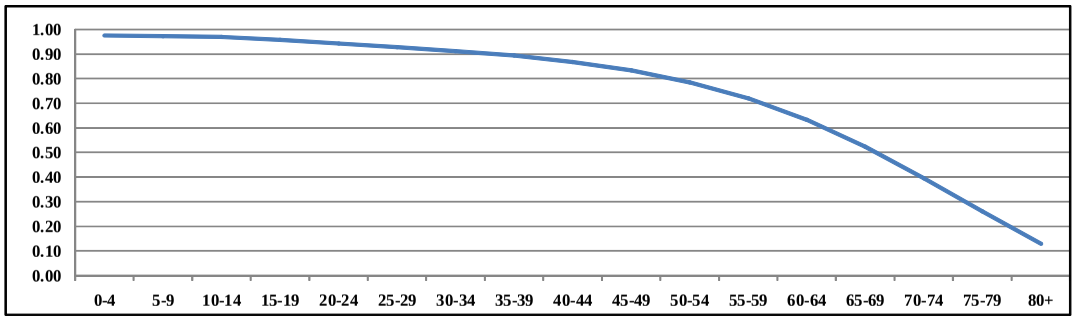
	Age at Death for All Males (Proportion)																
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**
1968	0.0472	0.0050	0.0050	0.0131	0.0145	0.0115	0.0113	0.0162	0.0266	0.0410	0.0590	0.0820	0.1032	0.1183	0.1310	0.1273	0.1877
1969	0.0463	0.0049	0.0050	0.0142	0.0159	0.0123	0.0117	0.0162	0.0267	0.0412	0.0583	0.0818	0.1029	0.1186	0.1278	0.1260	0.1900
1970	0.0458	0.0047	0.0051	0.0141	0.0166	0.0125	0.0120	0.0158	0.0262	0.0411	0.0585	0.0821	0.1041	0.1192	0.1265	0.1255	0.1901
1971	0.0422	0.0045	0.0049	0.0146	0.0176	0.0131	0.0121	0.0156	0.0250	0.0400	0.0580	0.0807	0.1039	0.1185	0.1261	0.1270	0.1961
1972	0.0375	0.0041	0.0050	0.0148	0.0178	0.0137	0.0124	0.0151	0.0242	0.0397	0.0583	0.0797	0.1051	0.1201	0.1270	0.1276	0.1980
1973	0.0348	0.0041	0.0050	0.0153	0.0183	0.0145	0.0130	0.0152	0.0233	0.0387	0.0574	0.0787	0.1043	0.1214	0.1267	0.1252	0.2040
1974	0.0335	0.0038	0.0048	0.0152	0.0183	0.0148	0.0133	0.0148	0.0224	0.0380	0.0576	0.0775	0.1040	0.1230	0.1287	0.1231	0.2071
1975	0.0323	0.0036	0.0045	0.0149	0.0190	0.0159	0.0135	0.0149	0.0218	0.0364	0.0573	0.0772	0.1037	0.1241	0.1293	0.1235	0.2083
1976	0.0307	0.0035	0.0042	0.0143	0.0184	0.0157	0.0131	0.0144	0.0210	0.0350	0.0557	0.0770	0.1034	0.1249	0.1294	0.1245	0.2149
1977	0.0302	0.0034	0.0042	0.0149	0.0192	0.0163	0.0140	0.0149	0.0205	0.0336	0.0546	0.0768	0.1018	0.1242	0.1321	0.1238	0.2155
1978	0.0294	0.0032	0.0039	0.0147	0.0196	0.0163	0.0144	0.0153	0.0200	0.0320	0.0530	0.0758	0.1010	0.1240	0.1335	0.1246	0.2193
1979	0.0293	0.0031	0.0036	0.0149	0.0203	0.0176	0.0154	0.0157	0.0199	0.0310	0.0516	0.0755	0.0991	0.1236	0.1341	0.1265	0.2190
1980	0.0284	0.0028	0.0033	0.0142	0.0203	0.0178	0.0159	0.0157	0.0194	0.0293	0.0494	0.0745	0.0969	0.1232	0.1348	0.1285	0.2255
1981	0.0274	0.0026	0.0032	0.0127	0.0191	0.0181	0.0167	0.0160	0.0196	0.0291	0.0479	0.0732	0.0978	0.1225	0.1363	0.1299	0.2281
1982	0.0271	0.0026	0.0030	0.0119	0.0180	0.0173	0.0164	0.0165	0.0192	0.0280	0.0460	0.0713	0.0986	0.1233	0.1379	0.1335	0.2294
1983	0.0257	0.0024	0.0029	0.0107	0.0164	0.0165	0.0162	0.0163	0.0195	0.0269	0.0436	0.0701	0.0977	0.1215	0.1395	0.1370	0.2372
1984	0.0246	0.0023	0.0029	0.0102	0.0166	0.0166	0.0168	0.0174	0.0204	0.0268	0.0419	0.0680	0.0980	0.1201	0.1395	0.1375	0.2405
1985	0.0248	0.0022	0.0028	0.0099	0.0159	0.0167	0.0175	0.0188	0.0209	0.0266	0.0402	0.0659	0.0961	0.1187	0.1392	0.1390	0.2447
1986	0.0240	0.0022	0.0028	0.0107	0.0165	0.0178	0.0196	0.0209	0.0217	0.0266	0.0390	0.0627	0.0935	0.1184	0.1381	0.1397	0.2457
1987	0.0235	0.0024	0.0027	0.0102	0.0154	0.0176	0.0202	0.0217	0.0229	0.0272	0.0386	0.0606	0.0915	0.1184	0.1371	0.1406	0.2493
1988	0.0233	0.0023	0.0026	0.0104	0.0151	0.0175	0.0208	0.0226	0.0240	0.0281	0.0376	0.0580	0.0890	0.1173	0.1350	0.1409	0.2553
1989	0.0238	0.0023	0.0026	0.0102	0.0144	0.0180	0.0218	0.0240	0.0257	0.0294	0.0378	0.0566	0.0868	0.1166	0.1333	0.1409	0.2558
1990	0.0232	0.0021	0.0025	0.0105	0.0146	0.0178	0.0218	0.0248	0.0269	0.0298	0.0374	0.0544	0.0846	0.1154	0.1327	0.1418	0.2597
1991	0.0224	0.0020	0.0027	0.0102	0.0145	0.0170	0.0221	0.0255	0.0286	0.0307	0.0372	0.0530	0.0822	0.1127	0.1333	0.1411	0.2650
1992	0.0208	0.0020	0.0026	0.0096	0.0139	0.0162	0.0222	0.0264	0.0298	0.0327	0.0381	0.0518	0.0792	0.1107	0.1336	0.1409	0.2696
1993	0.0198	0.0019	0.0026	0.0097	0.0136	0.0153	0.0224	0.0269	0.0303	0.0328	0.0391	0.0510	0.0756	0.1080	0.1327	0.1408	0.2775
1994	0.0186	0.0019	0.0026	0.0099	0.0132	0.0148	0.0225	0.0276	0.0316	0.0346	0.0407	0.0505	0.0736	0.1050	0.1326	0.1388	0.2815
1995	0.0173	0.0019	0.0026	0.0095	0.0126	0.0142	0.0216	0.0276	0.0323	0.0364	0.0412	0.0502	0.0712	0.1018	0.1318	0.1401	0.2878
1996	0.0166	0.0019	0.0024	0.0092	0.0118	0.0128	0.0183	0.0248	0.0306	0.0371	0.0411	0.0507	0.0707	0.1003	0.1311	0.1438	0.2967
1997	0.0164	0.0018	0.0024	0.0089	0.0114	0.0120	0.0156	0.0218	0.0287	0.0360	0.0426	0.0513	0.0691	0.0987	0.1301	0.1471	0.3062
1998	0.0162	0.0018	0.0023	0.0086	0.0111	0.0112	0.0142	0.0208	0.0286	0.0361	0.0433	0.0527	0.0685	0.0953	0.1289	0.1481	0.3123
1999	0.0156	0.0017	0.0022	0.0084	0.0108	0.0108	0.0135	0.0202	0.0285	0.0369	0.0446	0.0540	0.0675	0.0916	0.1254	0.1487	0.3197
2000	0.0155	0.0016	0.0022	0.0083	0.0115	0.0108	0.0131	0.0198	0.0290	0.0384	0.0470	0.0548	0.0671	0.0883	0.1218	0.1471	0.3238
2001	0.0153	0.0015	0.0021	0.0083	0.0121	0.0111	0.0134	0.0201	0.0291	0.0394	0.0493	0.0557	0.0670	0.0864	0.1179	0.1447	0.3267
2002	0.0153	0.0014	0.0021	0.0083	0.0122	0.0109	0.0132	0.0189	0.0292	0.0398	0.0501	0.0583	0.0681	0.0839	0.1138	0.1414	0.3331
2003	0.0156	0.0014	0.0021	0.0081	0.0125	0.0109	0.0130	0.0181	0.0289	0.0409	0.0513	0.0601	0.0702	0.0835	0.1091	0.1392	0.3351
2004	0.0155	0.0014	0.0020	0.0082	0.0127	0.0115	0.0126	0.0174	0.0282	0.0411	0.0531	0.0622	0.0717	0.0834	0.1053	0.1356	0.3381
2005	0.0152	0.0013	0.0018	0.0081	0.0128	0.0117	0.0124	0.0165	0.0273	0.0404	0.0536	0.0642	0.0721	0.0812	0.1029	0.1320	0.3464
2006	0.0154	0.0013	0.0017	0.0083	0.0135	0.0127	0.0126	0.0168	0.0267	0.0409	0.0551	0.0678	0.0730	0.0822	0.0994	0.1282	0.3445
2007	0.0153	0.0013	0.0018	0.0082	0.0131	0.0122	0.0125	0.0167	0.0270	0.0406	0.0544	0.0660	0.0725	0.0817	0.1012	0.1301	0.3454
Mean	0.0250	0.0025	0.0031	0.0112	0.0153	0.0145	0.0159	0.0191	0.0253	0.0348	0.0480	0.0654	0.0872	0.1092	0.1277	0.1350	0.2608



All costs reported in red italics are in thousands.

Table 3.34. Age at Death for All Males: 1-Cumulative Proportion

	Age at Death for All Males (1-Cumulative Proportion)																
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**
1968	0.9528	0.9478	0.9428	0.9297	0.9152	0.9038	0.8924	0.8762	0.8496	0.8086	0.7496	0.6676	0.5644	0.4461	0.3151	0.1877	0.0939
1969	0.9537	0.9487	0.9437	0.9296	0.9136	0.9013	0.8896	0.8734	0.8467	0.8055	0.7472	0.6653	0.5625	0.4438	0.3160	0.1900	0.0950
1970	0.9542	0.9495	0.9445	0.9303	0.9137	0.9012	0.8892	0.8734	0.8472	0.8061	0.7476	0.6655	0.5614	0.4422	0.3156	0.1901	0.0951
1971	0.9578	0.9533	0.9484	0.9338	0.9162	0.9031	0.8910	0.8754	0.8503	0.8103	0.7523	0.6716	0.5677	0.4492	0.3231	0.1961	0.0981
1972	0.9625	0.9584	0.9535	0.9386	0.9209	0.9072	0.8949	0.8798	0.8556	0.8159	0.7576	0.6779	0.5728	0.4527	0.3257	0.1980	0.0990
1973	0.9652	0.9611	0.9561	0.9408	0.9225	0.9080	0.8949	0.8797	0.8564	0.8177	0.7604	0.6816	0.5773	0.4559	0.3292	0.2040	0.1020
1974	0.9665	0.9627	0.9579	0.9427	0.9244	0.9096	0.8963	0.8815	0.8591	0.8211	0.7635	0.6860	0.5820	0.4589	0.3302	0.2071	0.1036
1975	0.9677	0.9641	0.9596	0.9447	0.9257	0.9098	0.8963	0.8814	0.8596	0.8233	0.7660	0.6888	0.5851	0.4610	0.3317	0.2083	0.1041
1976	0.9693	0.9659	0.9616	0.9473	0.9290	0.9133	0.9002	0.8858	0.8648	0.8298	0.7741	0.6971	0.5937	0.4688	0.3394	0.2149	0.1075
1977	0.9698	0.9664	0.9622	0.9473	0.9280	0.9118	0.8977	0.8829	0.8624	0.8288	0.7742	0.6974	0.5956	0.4714	0.3393	0.2155	0.1078
1978	0.9706	0.9674	0.9635	0.9488	0.9292	0.9130	0.8986	0.8833	0.8632	0.8312	0.7782	0.7024	0.6014	0.4774	0.3439	0.2193	0.1096
1979	0.9707	0.9676	0.9640	0.9491	0.9289	0.9112	0.8959	0.8802	0.8603	0.8293	0.7777	0.7022	0.6031	0.4796	0.3455	0.2190	0.1095
1980	0.9716	0.9688	0.9654	0.9512	0.9309	0.9131	0.8972	0.8815	0.8621	0.8328	0.7834	0.7089	0.6120	0.4887	0.3540	0.2255	0.1127
1981	0.9726	0.9700	0.9667	0.9541	0.9350	0.9169	0.9002	0.8843	0.8647	0.8357	0.7878	0.7146	0.6168	0.4943	0.3580	0.2281	0.1141
1982	0.9729	0.9704	0.9673	0.9554	0.9375	0.9201	0.9037	0.8873	0.8681	0.8400	0.7940	0.7227	0.6241	0.5009	0.3630	0.2294	0.1147
1983	0.9743	0.9720	0.9690	0.9584	0.9420	0.9255	0.9093	0.8930	0.8735	0.8466	0.8030	0.7329	0.6352	0.5136	0.3742	0.2372	0.1186
1984	0.9754	0.9730	0.9702	0.9599	0.9434	0.9268	0.9101	0.8926	0.8723	0.8454	0.8036	0.7355	0.6376	0.5175	0.3780	0.2405	0.1202
1985	0.9752	0.9730	0.9702	0.9602	0.9444	0.9277	0.9102	0.8914	0.8705	0.8439	0.8036	0.7378	0.6416	0.5229	0.3838	0.2447	0.1224
1986	0.9760	0.9738	0.9710	0.9603	0.9438	0.9260	0.9063	0.8854	0.8637	0.8371	0.7981	0.7354	0.6419	0.5236	0.3855	0.2457	0.1229
1987	0.9765	0.9741	0.9714	0.9612	0.9458	0.9282	0.9080	0.8863	0.8634	0.8362	0.7976	0.7369	0.6455	0.5271	0.3899	0.2493	0.1247
1988	0.9767	0.9744	0.9718	0.9614	0.9463	0.9288	0.9080	0.8854	0.8613	0.8332	0.7956	0.7376	0.6485	0.5313	0.3962	0.2553	0.1277
1989	0.9762	0.9740	0.9713	0.9612	0.9468	0.9289	0.9071	0.8830	0.8573	0.8279	0.7901	0.7335	0.6467	0.5301	0.3968	0.2558	0.1279
1990	0.9768	0.9747	0.9722	0.9616	0.9470	0.9291	0.9073	0.8825	0.8556	0.8258	0.7884	0.7340	0.6495	0.5341	0.4014	0.2597	0.1298
1991	0.9776	0.9756	0.9729	0.9628	0.9482	0.9313	0.9091	0.8837	0.8551	0.8244	0.7872	0.7342	0.6521	0.5393	0.4060	0.2650	0.1325
1992	0.9792	0.9772	0.9746	0.9650	0.9511	0.9350	0.9128	0.8863	0.8566	0.8239	0.7859	0.7340	0.6548	0.5441	0.4105	0.2696	0.1348
1993	0.9802	0.9783	0.9757	0.9661	0.9525	0.9371	0.9148	0.8879	0.8575	0.8247	0.7856	0.7346	0.6590	0.5510	0.4183	0.2775	0.1387
1994	0.9814	0.9795	0.9769	0.9670	0.9538	0.9390	0.9165	0.8889	0.8573	0.8227	0.7820	0.7315	0.6579	0.5529	0.4203	0.2815	0.1407
1995	0.9827	0.9808	0.9783	0.9688	0.9562	0.9420	0.9204	0.8928	0.8605	0.8242	0.7829	0.7327	0.6615	0.5597	0.4279	0.2878	0.1439
1996	0.9834	0.9815	0.9790	0.9698	0.9580	0.9452	0.9268	0.9020	0.8715	0.8344	0.7933	0.7426	0.6719	0.5715	0.4405	0.2967	0.1483
1997	0.9836	0.9818	0.9794	0.9705	0.9591	0.9471	0.9315	0.9098	0.8811	0.8451	0.8025	0.7511	0.6820	0.5833	0.4533	0.3062	0.1531
1998	0.9838	0.9820	0.9797	0.9711	0.9600	0.9487	0.9346	0.9138	0.8851	0.8490	0.8058	0.7531	0.6846	0.5893	0.4604	0.3123	0.1562
1999	0.9844	0.9827	0.9805	0.9722	0.9614	0.9506	0.9371	0.9169	0.8884	0.8516	0.8069	0.7529	0.6854	0.5938	0.4684	0.3197	0.1598
2000	0.9845	0.9829	0.9807	0.9725	0.9610	0.9502	0.9371	0.9173	0.8883	0.8499	0.8029	0.7482	0.6811	0.5927	0.4709	0.3238	0.1619
2001	0.9847	0.9832	0.9811	0.9728	0.9607	0.9497	0.9363	0.9162	0.8870	0.8476	0.7983	0.7426	0.6757	0.5893	0.4714	0.3267	0.1634
2002	0.9847	0.9833	0.9812	0.9730	0.9607	0.9498	0.9366	0.9177	0.8885	0.8486	0.7986	0.7403	0.6722	0.5883	0.4745	0.3331	0.1665
2003	0.9844	0.9830	0.9809	0.9728	0.9603	0.9494	0.9363	0.9182	0.8892	0.8483	0.7971	0.7370	0.6668	0.5833	0.4742	0.3351	0.1675
2004	0.9845	0.9831	0.9810	0.9728	0.9601	0.9486	0.9360	0.9186	0.8904	0.8493	0.7962	0.7340	0.6624	0.5790	0.4737	0.3381	0.1691
2005	0.9848	0.9835	0.9817	0.9736	0.9608	0.9491	0.9367	0.9202	0.8929	0.8525	0.7989	0.7347	0.6626	0.5814	0.4784	0.3464	0.1732
2006	0.9846	0.9833	0.9816	0.9733	0.9598	0.9471	0.9345	0.9177	0.8909	0.8501	0.7950	0.7272	0.6542	0.5721	0.4727	0.3445	0.1722
2007	0.9847	0.9834	0.9816	0.9734	0.9603	0.9481	0.9356	0.9189	0.8919	0.8513	0.7969	0.7310	0.6584	0.5767	0.4755	0.3454	0.1727
Mean	0.9750	0.9724	0.9693	0.9581	0.9429	0.9283	0.9124	0.8933	0.8680	0.8332	0.7852	0.7199	0.6327	0.5235	0.3958	0.2608	0.1304



All costs reported in red italics are in thousands.

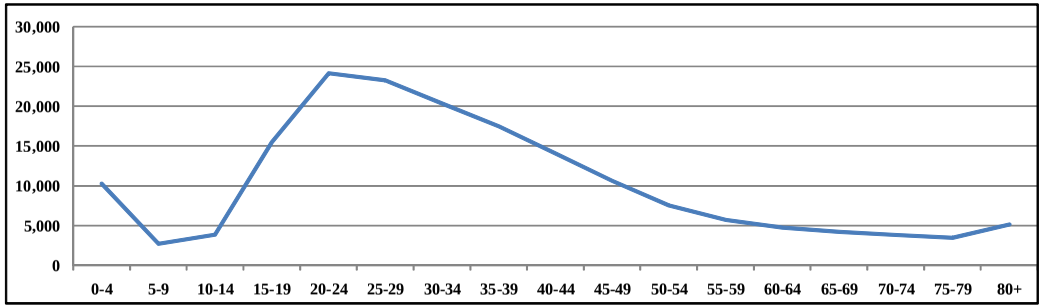
Table 3.35. Premature Mortality: Male Homicides

	Age in 2007 (Males)																
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**
1968									161	52	84	628	897	674	417	228	106
1969									185	52	78	713	1,020	739	426	241	113
1970								183	52	123	877	1,352	1,013	655	402	223	100
1971								223	67	113	933	1,617	1,199	748	469	261	108
1972								202	38	131	997	1,784	1,319	789	503	289	118
1973								235	70	145	1,027	1,716	1,377	856	484	267	117
1974								212	65	139	1,136	1,869	1,450	911	529	279	125
1975							260	53	127	1,198	2,065	1,757	1,135	694	431	251	103
1976							218	74	136	1,118	1,900	1,706	1,020	664	415	224	89
1977							252	86	119	1,150	1,958	1,713	1,095	692	404	208	91
1978							228	79	138	1,137	2,160	1,847	1,164	717	412	214	95
1979							231	80	125	1,360	2,394	2,085	1,385	779	430	237	99
1980						268	68	128	1,479	2,876	2,605	1,814	1,088	642	390	209	79
1981						273	76	149	1,378	2,688	2,534	1,872	1,061	635	407	221	83
1982						312	73	108	1,326	2,471	2,461	1,768	1,088	607	344	204	70
1983						253	73	125	1,087	2,240	2,157	1,604	979	607	304	164	68
1984						285	65	133	1,001	2,073	2,141	1,532	1,007	573	318	163	65
1985					275	78	147	1,098	2,159	2,200	1,738	1,189	735	419	228	132	50
1986					353	62	134	1,249	2,494	2,474	1,941	1,308	742	440	244	132	44
1987					301	72	151	1,277	2,371	2,266	1,776	1,262	724	410	227	133	46
1988					350	91	153	1,538	2,506	2,434	1,910	1,294	786	422	206	118	47
1989					363	83	190	1,781	2,611	2,495	2,005	1,330	821	443	241	107	49
1990				370	66	214	2,315	3,190	2,862	2,191	1,625	1,021	566	314	167	99	35
1991				421	67	248	2,622	3,525	2,844	2,308	1,646	1,060	631	341	188	104	38
1992				407	74	276	2,600	3,534	2,650	2,188	1,558	1,038	620	322	172	93	34
1993				446	100	284	2,791	3,612	2,551	2,161	1,577	1,026	629	339	170	89	34
1994				425	71	261	2,832	3,431	2,474	2,045	1,557	1,051	580	320	162	83	34
1995			417	83	274	2,592	3,142	2,299	1,879	1,370	1,026	642	272	169	129	68	21
1996			373	91	207	2,350	2,892	2,100	1,660	1,353	961	606	256	157	121	64	21
1997			381	90	191	2,109	2,816	2,031	1,531	1,249	930	647	239	155	121	60	23
1998			387	80	165	1,844	2,532	1,840	1,325	1,147	914	564	233	136	106	54	20
1999			260	71	121	1,448	2,008	1,567	1,119	949	740	494	193	110	87	52	18
2000		270	270	56	121	1,329	2,175	1,558	1,126	911	769	498	194	110	87	43	19
2001		294	293	55	93	1,341	2,364	1,668	1,142	934	726	535	197	108	86	51	18
2002		281	281	49	94	1,325	2,401	1,735	1,210	967	762	545	234	121	98	45	18
2003		285	284	61	132	1,593	2,751	1,995	1,368	1,020	840	639	226	121	98	50	21
2004		255	254	53	128	1,538	2,558	2,040	1,351	994	815	604	248	142	116	58	21
2005	224	50	106	1,479	2,394	1,844	1,306	874	805	618	414	219	135	66	54	24	13
2006	320	69	163	1,927	2,864	2,223	1,499	1,090	918	785	519	317	179	80	55	31	14
2007	272	59	134	1,703	2,629	2,033	1,402	982	862	701	466	268	157	73	54	27	14
Total	815	1,564	3,603	7,869	11,433	26,629	45,325	48,088	49,370	54,827	54,724	45,534	28,892	17,300	10,302	5,602	2,281
Market Productivity Value (MPV) By Age				$6,333	$23,600	$45,940	$56,933	$62,887	$64,475	$64,553	$63,289	$51,913	$39,271	$15,789	$9,757	$5,478	$3,853
Lost MPV By Age				*$49,830*	*$269,827*	*$1,223,317*	*$2,580,478*	*$3,024,085*	*$3,183,142*	*$3,539,207*	*$3,463,447*	*$2,363,819*	*$1,134,615*	*$273,137*	*$100,513*	*$30,693*	*$8,789*
Lost MPV With Attribution			0.12	*$5,980*	*$32,379*	*$146,798*	*$309,657*	*$362,890*	*$381,977*	*$424,705*	*$415,614*	*$283,658*	*$136,154*	*$32,776*	*$12,062*	*$3,683*	*$1,055*
Total Lost MPV			*$2,549,388*														
Household Production Value (HPV) By Age				$4,659	$6,213	$9,058	$11,159	$11,810	$11,538	$11,512	$10,254	$11,352	$11,863	$12,917	$13,291	$12,588	$9,810
Lost HPV By Age				*$36,663*	*$71,031*	*$241,193*	*$505,761*	*$567,934*	*$569,628*	*$631,155*	*$561,155*	*$516,887*	*$342,738*	*$223,455*	*$136,926*	*$70,527*	*$22,378*
Lost HPV With Attribution			0.12	*$4,400*	*$8,524*	*$28,943*	*$60,691*	*$68,152*	*$68,355*	*$75,739*	*$67,339*	*$62,026*	*$41,129*	*$26,815*	*$16,431*	*$8,463*	*$2,685*
Total Lost HPV			*$539,692*														
Total Production Value (TPV) By Age				*$86,492*	*$340,858*	*$1,464,510*	*$3,086,239*	*$3,592,020*	*$3,752,771*	*$4,170,362*	*$4,024,602*	*$2,880,706*	*$1,477,354*	*$496,592*	*$237,439*	*$101,220*	*$31,166*
Lost TPV With Attribution			0.12	*$10,379*	*$40,903*	*$175,741*	*$370,349*	*$431,042*	*$450,332*	*$500,443*	*$482,952*	*$345,685*	*$177,282*	*$59,591*	*$28,493*	*$12,146*	*$3,740*
Total Lost TPV			*$3,089,080*														

All costs reported in red italics are in thousands.

Table 3.36. Age at Death for Females: Drug-Induced

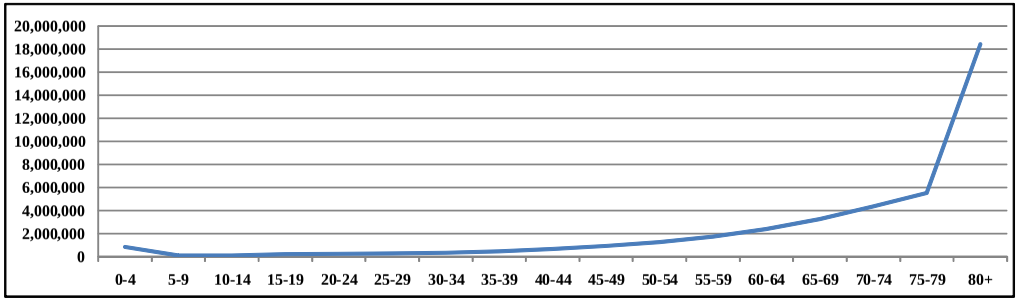
	Age at Death for Females (Homicide)																	
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**	**Total**
1968	187	64	57	238	428	357	330	330	320	230	162	128	101	76	46	48	45	3,147
1969	171	47	78	290	438	394	375	302	314	257	157	148	98	83	57	36	48	3,293
1970	198	55	90	303	521	432	330	340	334	255	184	138	110	88	63	54	68	3,563
1971	228	68	101	354	519	479	392	380	341	297	195	156	158	75	87	52	82	3,964
1972	188	50	102	406	616	478	416	322	328	284	198	170	122	80	78	58	88	3,984
1973	235	57	107	466	713	552	468	432	372	302	232	163	133	117	95	85	84	4,613
1974	221	61	90	496	726	615	502	400	354	259	256	167	148	121	115	85	92	4,708
1975	206	76	98	510	723	598	473	390	355	308	240	176	149	127	97	103	111	4,740
1976	234	60	92	433	697	586	416	340	281	269	219	178	147	106	104	109	129	4,400
1977	226	91	109	476	729	612	450	373	314	243	213	184	161	111	115	79	114	4,600
1978	220	80	123	471	748	628	456	362	309	232	216	165	128	115	116	91	123	4,583
1979	227	74	84	511	821	684	486	380	304	295	186	167	163	150	133	78	149	4,892
1980	235	77	117	511	877	758	542	445	303	256	223	164	155	139	126	102	137	5,167
1981	253	60	93	447	780	704	605	381	301	271	183	185	165	121	91	129	142	4,911
1982	258	79	94	448	789	719	551	412	313	235	211	160	152	117	115	103	156	4,912
1983	240	64	73	389	715	720	519	401	310	247	179	180	129	133	92	120	150	4,661
1984	271	84	125	393	764	708	519	412	309	223	157	159	149	114	107	99	141	4,734
1985	259	83	89	357	652	732	610	465	315	242	182	162	152	139	111	107	155	4,812
1986	285	66	98	428	750	821	616	471	337	219	183	138	147	141	127	107	171	5,105
1987	287	62	99	397	735	818	684	492	341	247	182	154	138	139	139	125	173	5,212
1988	328	81	110	392	711	874	715	483	340	218	172	155	134	159	133	115	170	5,290
1989	349	92	118	404	670	796	687	506	361	236	174	134	132	148	120	104	155	5,186
1990	323	86	127	472	660	787	758	542	359	248	160	138	115	114	110	113	183	5,295
1991	365	67	114	467	775	795	805	584	415	305	193	145	148	144	102	127	170	5,721
1992	330	68	144	437	690	776	734	558	420	269	193	108	114	124	123	107	151	5,346
1993	339	89	159	497	720	801	786	601	450	287	167	133	106	126	132	96	186	5,675
1994	340	80	134	451	640	679	719	650	376	259	172	117	104	103	115	95	153	5,187
1995	333	70	118	517	544	628	694	596	450	271	196	140	92	107	113	103	156	5,128
1996	371	85	117	415	478	521	585	578	397	319	171	114	94	100	91	95	137	4,668
1997	298	77	82	381	462	471	529	528	410	302	163	127	94	92	100	90	150	4,356
1998	323	84	115	341	446	478	475	526	435	284	146	109	77	79	86	72	142	4,218
1999	224	77	78	302	413	392	395	436	351	225	164	89	70	69	81	72	103	3,541
2000	215	51	72	270	378	343	359	443	347	248	163	95	76	70	65	74	106	3,375
2001	222	49	57	237	397	373	379	433	369	244	167	111	87	87	79	77	113	3,481
2002	229	57	65	261	410	346	373	401	356	271	183	121	73	61	60	59	106	3,432
2003	233	51	56	255	477	372	391	405	381	320	200	136	79	70	73	73	122	3,694
2004	256	49	67	296	399	374	357	339	408	324	184	131	106	83	61	80	124	3,638
2005	154	41	70	214	354	309	282	330	306	249	151	109	73	66	64	64	108	2,944
2006	229	66	68	298	416	419	311	377	358	314	253	159	110	70	64	54	130	3,696
2007	192	54	69	256	385	364	297	354	332	282	202	134	92	68	64	59	119	3,320
Total	10,282	2,732	3,859	15,487	24,166	23,293	20,371	17,500	14,076	10,646	7,532	5,747	4,781	4,232	3,850	3,499	5,142	177,192



All costs reported in red italics are in thousands.

Table 3.37. Age at Death for All Females

	Age at Death for All Females																	
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**	**Total**
1968	37,998	3,674	3,016	5,436	5,751	5,586	6,862	10,939	17,941	26,617	35,439	46,940	60,047	79,964	102,646	124,223	269,508	842,587
1969	37,291	3,566	3,135	5,825	6,093	5,744	7,045	10,701	17,615	26,208	34,868	46,644	59,295	79,354	101,224	122,482	273,715	840,805
1970	36,928	3,360	3,022	5,833	6,378	6,023	6,898	10,457	16,973	26,522	35,713	47,267	60,495	79,101	101,579	122,408	273,960	842,917
1971	33,873	3,316	3,118	6,066	6,586	6,144	7,041	10,028	16,622	25,867	35,544	46,601	61,393	77,400	101,040	123,620	286,335	850,594
1972	30,344	3,218	3,108	6,108	6,646	6,314	7,194	9,802	16,098	25,600	35,340	46,924	62,150	81,022	103,258	126,476	298,620	868,222
1973	28,313	3,065	2,992	6,207	6,617	6,347	7,275	9,762	15,409	24,989	35,824	47,277	62,630	80,505	102,257	125,915	311,304	876,688
1974	26,782	2,626	2,872	5,774	6,347	6,409	7,108	9,082	14,593	23,438	34,964	45,561	62,203	79,612	101,235	121,574	313,055	863,235
1975	25,732	2,480	2,573	5,657	6,425	6,350	6,925	8,715	13,591	22,227	33,865	45,290	60,442	78,217	98,241	118,578	307,269	842,577
1976	24,684	2,423	2,437	5,585	6,292	6,492	6,818	8,472	12,884	21,354	33,429	45,436	61,053	79,212	97,468	119,670	324,404	858,113
1977	23,743	2,291	2,411	5,889	6,511	6,369	7,016	8,518	12,675	20,417	32,639	45,323	60,674	79,720	98,045	117,590	324,105	853,936
1978	23,475	2,305	2,245	5,753	6,775	6,592	7,056	8,564	12,430	19,915	31,957	45,571	60,946	80,563	100,299	119,798	338,847	873,091
1979	23,264	2,121	2,120	5,553	6,603	6,513	7,136	8,813	11,898	18,444	30,715	44,868	59,942	80,091	100,252	119,702	341,582	869,617
1980	23,190	2,106	2,060	5,553	6,635	6,727	7,528	8,860	12,004	18,352	30,429	46,023	62,078	83,939	105,543	125,528	369,044	915,599
1981	22,518	1,839	1,940	4,970	6,423	6,745	7,810	8,861	11,630	17,728	29,523	45,549	62,589	83,692	105,259	123,837	373,651	914,564
1982	21,713	1,850	1,874	4,555	6,223	6,590	7,445	8,945	11,737	17,040	28,140	44,501	63,521	83,563	106,843	126,822	377,959	919,321
1983	21,003	1,742	1,776	4,382	5,918	6,607	7,366	9,047	11,951	16,864	27,722	44,721	64,595	84,820	110,126	130,823	398,594	948,057
1984	20,497	1,672	1,839	4,310	5,906	6,514	7,694	9,578	12,454	16,961	26,500	43,845	65,049	85,641	111,794	133,863	409,541	963,658
1985	20,218	1,747	1,717	4,264	5,570	6,543	8,001	9,910	12,470	17,122	26,290	43,041	65,908	86,594	113,251	137,611	428,999	989,256
1986	19,941	1,660	1,657	4,463	5,684	6,905	8,453	10,491	13,034	17,091	25,814	41,189	65,667	88,154	114,595	139,348	437,747	1,001,893
1987	19,872	1,679	1,513	4,382	5,468	7,107	8,902	10,873	13,296	17,524	25,601	40,553	64,535	89,119	114,164	141,037	450,553	1,016,178
1988	20,159	1,790	1,674	4,365	5,315	7,185	9,017	11,207	13,866	18,112	25,500	40,227	64,314	89,718	115,197	144,034	471,586	1,043,266
1989	20,516	1,817	1,699	4,322	5,061	7,027	9,393	11,143	14,501	18,180	25,365	38,554	62,068	89,383	113,714	144,290	470,202	1,037,235
1990	19,503	1,641	1,688	4,070	4,851	6,820	9,270	11,530	14,656	18,801	25,259	37,395	60,814	89,125	113,034	143,378	474,175	1,036,010
1991	18,982	1,643	1,589	3,974	4,987	6,522	9,460	12,050	15,583	19,310	25,425	37,286	59,527	88,242	114,870	143,696	485,768	1,048,914
1992	18,089	1,526	1,623	3,689	4,706	6,306	9,331	12,485	15,886	19,941	25,908	36,584	57,712	86,989	117,056	143,621	492,885	1,054,337
1993	17,632	1,729	1,748	3,860	4,768	6,359	9,666	13,173	16,538	21,222	27,240	37,274	57,588	88,054	120,422	149,220	531,242	1,107,735
1994	16,895	1,569	1,740	3,857	4,678	6,270	9,883	13,767	17,051	22,338	28,206	37,269	55,829	86,522	121,201	149,037	541,143	1,117,255
1995	15,780	1,580	1,824	4,044	4,491	6,141	9,833	14,183	18,031	23,051	29,107	37,872	55,538	85,057	122,080	151,249	560,240	1,140,101
1996	15,163	1,587	1,760	4,002	4,189	5,942	9,206	13,737	18,079	24,023	29,532	37,827	54,926	83,523	121,489	153,970	573,211	1,152,166
1997	14,668	1,617	1,715	4,022	4,270	5,540	8,355	13,136	18,213	23,691	30,711	39,036	54,268	81,110	119,544	156,110	585,253	1,161,259
1998	14,963	1,501	1,624	3,905	4,065	5,291	8,064	13,247	18,577	23,749	31,121	39,836	53,953	79,724	120,217	158,171	603,117	1,181,125
1999	14,372	1,514	1,610	4,033	4,278	5,196	7,657	13,156	19,055	24,867	32,566	41,537	54,922	79,296	118,657	163,628	630,481	1,216,825
2000	14,309	1,420	1,627	3,894	4,408	5,097	7,539	12,937	19,663	25,769	34,302	42,422	55,334	77,955	116,157	164,512	639,517	1,226,862
2001	14,133	1,376	1,574	3,812	4,531	5,256	7,765	13,209	20,391	27,176	36,171	43,816	55,583	76,257	113,401	162,503	647,064	1,234,018
2002	14,168	1,327	1,653	3,991	4,695	5,051	7,647	12,759	20,868	28,412	36,369	45,704	56,471	75,161	111,116	160,646	659,012	1,245,050
2003	14,296	1,269	1,564	3,921	5,055	5,245	7,530	12,370	20,757	29,087	37,139	47,248	59,019	74,631	107,718	158,001	662,781	1,247,631
2004	14,392	1,254	1,603	4,051	4,844	5,253	7,326	11,499	20,271	29,462	37,190	47,859	59,010	73,689	103,391	150,576	645,536	1,217,206
2005	11,802	1,067	1,175	3,197	4,081	4,344	6,046	9,508	16,684	25,036	32,443	41,321	50,418	62,027	85,708	125,534	564,772	1,045,163
2006	14,674	1,191	1,355	3,853	5,031	5,752	7,088	11,407	19,585	30,323	39,697	51,779	60,866	73,295	98,908	143,636	657,284	1,225,724
2007	13,238	1,129	1,265	3,525	4,556	5,048	6,567	10,458	18,135	27,680	36,070	46,550	55,642	67,661	92,308	134,585	611,028	1,135,444
Total	839,113	78,287	79,535	184,952	217,711	244,266	314,216	437,379	633,695	900,510	1,255,637	1,730,520	2,389,014	3,247,702	4,335,307	5,521,302	18,415,089	40,824,234



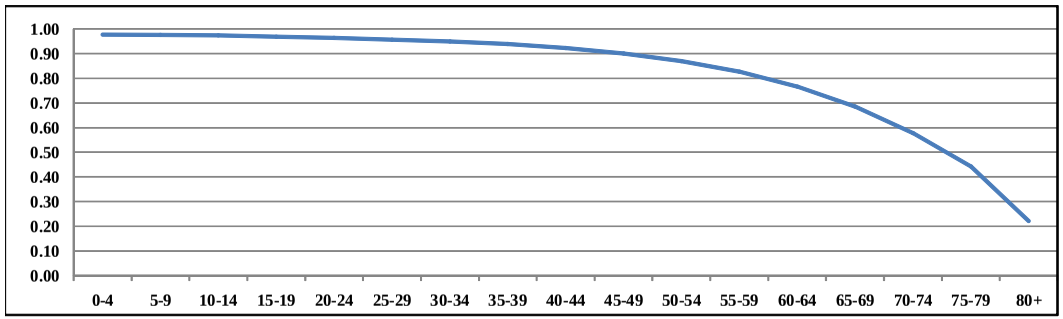
All costs reported in red italics are in thousands.

Table 3.38. Age at Death for All Females: Proportion

Year	Age at Death for All Females (Proportion)																
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80+
1968	0.0451	0.0044	0.0036	0.0065	0.0068	0.0066	0.0081	0.0130	0.0213	0.0316	0.0421	0.0557	0.0713	0.0949	0.1218	0.1474	0.3199
1969	0.0444	0.0042	0.0037	0.0069	0.0072	0.0068	0.0084	0.0127	0.0210	0.0312	0.0415	0.0555	0.0705	0.0944	0.1204	0.1457	0.3255
1970	0.0438	0.0040	0.0036	0.0069	0.0076	0.0071	0.0082	0.0124	0.0201	0.0315	0.0424	0.0561	0.0718	0.0938	0.1205	0.1452	0.3250
1971	0.0398	0.0039	0.0037	0.0071	0.0077	0.0072	0.0083	0.0118	0.0195	0.0304	0.0418	0.0548	0.0722	0.0910	0.1188	0.1453	0.3366
1972	0.0349	0.0037	0.0036	0.0070	0.0077	0.0073	0.0083	0.0113	0.0185	0.0295	0.0407	0.0540	0.0716	0.0933	0.1189	0.1457	0.3439
1973	0.0323	0.0035	0.0034	0.0071	0.0075	0.0072	0.0083	0.0111	0.0176	0.0285	0.0409	0.0539	0.0714	0.0918	0.1166	0.1436	0.3551
1974	0.0310	0.0030	0.0033	0.0067	0.0074	0.0074	0.0082	0.0105	0.0169	0.0272	0.0405	0.0528	0.0721	0.0922	0.1173	0.1408	0.3627
1975	0.0305	0.0029	0.0031	0.0067	0.0076	0.0075	0.0082	0.0103	0.0161	0.0264	0.0402	0.0538	0.0717	0.0928	0.1166	0.1407	0.3647
1976	0.0288	0.0028	0.0028	0.0065	0.0073	0.0076	0.0079	0.0099	0.0150	0.0249	0.0390	0.0529	0.0711	0.0923	0.1136	0.1395	0.3780
1977	0.0278	0.0027	0.0028	0.0069	0.0076	0.0075	0.0082	0.0100	0.0148	0.0239	0.0382	0.0531	0.0711	0.0934	0.1148	0.1377	0.3795
1978	0.0269	0.0026	0.0026	0.0066	0.0078	0.0076	0.0081	0.0098	0.0142	0.0228	0.0366	0.0522	0.0698	0.0923	0.1149	0.1372	0.3881
1979	0.0268	0.0024	0.0024	0.0064	0.0076	0.0075	0.0082	0.0101	0.0137	0.0212	0.0353	0.0516	0.0689	0.0921	0.1153	0.1376	0.3928
1980	0.0253	0.0023	0.0022	0.0061	0.0072	0.0073	0.0082	0.0097	0.0131	0.0200	0.0332	0.0503	0.0678	0.0917	0.1153	0.1371	0.4031
1981	0.0246	0.0020	0.0021	0.0054	0.0070	0.0074	0.0085	0.0097	0.0127	0.0194	0.0323	0.0498	0.0684	0.0915	0.1151	0.1354	0.4086
1982	0.0236	0.0020	0.0020	0.0050	0.0068	0.0072	0.0081	0.0097	0.0128	0.0185	0.0306	0.0484	0.0691	0.0909	0.1162	0.1380	0.4111
1983	0.0222	0.0018	0.0019	0.0046	0.0062	0.0070	0.0078	0.0095	0.0126	0.0178	0.0292	0.0472	0.0681	0.0895	0.1162	0.1380	0.4204
1984	0.0213	0.0017	0.0019	0.0045	0.0061	0.0068	0.0080	0.0099	0.0129	0.0176	0.0275	0.0455	0.0675	0.0889	0.1160	0.1389	0.4250
1985	0.0204	0.0018	0.0017	0.0043	0.0056	0.0066	0.0081	0.0100	0.0126	0.0173	0.0266	0.0435	0.0666	0.0875	0.1145	0.1391	0.4337
1986	0.0199	0.0017	0.0017	0.0045	0.0057	0.0069	0.0084	0.0105	0.0130	0.0171	0.0258	0.0411	0.0655	0.0880	0.1144	0.1391	0.4369
1987	0.0196	0.0017	0.0015	0.0043	0.0054	0.0070	0.0088	0.0107	0.0131	0.0172	0.0252	0.0399	0.0635	0.0877	0.1123	0.1388	0.4434
1988	0.0193	0.0017	0.0016	0.0042	0.0051	0.0069	0.0086	0.0107	0.0133	0.0174	0.0244	0.0386	0.0616	0.0860	0.1104	0.1381	0.4520
1989	0.0198	0.0018	0.0016	0.0042	0.0049	0.0068	0.0091	0.0107	0.0140	0.0175	0.0245	0.0372	0.0598	0.0862	0.1096	0.1391	0.4533
1990	0.0188	0.0016	0.0016	0.0039	0.0047	0.0066	0.0089	0.0111	0.0141	0.0181	0.0244	0.0361	0.0587	0.0860	0.1091	0.1384	0.4577
1991	0.0181	0.0016	0.0015	0.0038	0.0048	0.0062	0.0090	0.0115	0.0149	0.0184	0.0242	0.0355	0.0568	0.0841	0.1095	0.1370	0.4631
1992	0.0172	0.0014	0.0015	0.0035	0.0045	0.0060	0.0089	0.0118	0.0151	0.0189	0.0246	0.0347	0.0547	0.0825	0.1110	0.1362	0.4675
1993	0.0159	0.0016	0.0016	0.0035	0.0043	0.0057	0.0087	0.0119	0.0149	0.0192	0.0246	0.0336	0.0520	0.0795	0.1087	0.1347	0.4796
1994	0.0151	0.0014	0.0016	0.0035	0.0042	0.0056	0.0088	0.0123	0.0153	0.0200	0.0252	0.0334	0.0500	0.0774	0.1085	0.1334	0.4844
1995	0.0138	0.0014	0.0016	0.0035	0.0039	0.0054	0.0086	0.0124	0.0158	0.0202	0.0255	0.0332	0.0487	0.0746	0.1071	0.1327	0.4914
1996	0.0132	0.0014	0.0015	0.0035	0.0036	0.0052	0.0080	0.0119	0.0157	0.0209	0.0256	0.0328	0.0477	0.0725	0.1054	0.1336	0.4975
1997	0.0126	0.0014	0.0015	0.0035	0.0037	0.0048	0.0072	0.0113	0.0157	0.0204	0.0264	0.0336	0.0467	0.0698	0.1029	0.1344	0.5040
1998	0.0127	0.0013	0.0014	0.0033	0.0034	0.0045	0.0068	0.0112	0.0157	0.0201	0.0263	0.0337	0.0457	0.0675	0.1018	0.1339	0.5106
1999	0.0118	0.0012	0.0013	0.0033	0.0035	0.0043	0.0063	0.0108	0.0157	0.0204	0.0268	0.0341	0.0451	0.0652	0.0975	0.1345	0.5181
2000	0.0117	0.0012	0.0013	0.0032	0.0036	0.0042	0.0061	0.0105	0.0160	0.0210	0.0280	0.0346	0.0451	0.0635	0.0947	0.1341	0.5213
2001	0.0115	0.0011	0.0013	0.0031	0.0037	0.0043	0.0063	0.0107	0.0165	0.0220	0.0293	0.0355	0.0450	0.0618	0.0919	0.1317	0.5244
2002	0.0114	0.0011	0.0013	0.0032	0.0038	0.0041	0.0061	0.0102	0.0168	0.0228	0.0292	0.0367	0.0454	0.0604	0.0892	0.1290	0.5293
2003	0.0115	0.0010	0.0013	0.0031	0.0041	0.0042	0.0060	0.0099	0.0166	0.0233	0.0298	0.0379	0.0473	0.0598	0.0863	0.1266	0.5312
2004	0.0118	0.0010	0.0013	0.0033	0.0040	0.0043	0.0060	0.0094	0.0167	0.0242	0.0306	0.0393	0.0485	0.0605	0.0849	0.1237	0.5303
2005	0.0113	0.0010	0.0011	0.0031	0.0039	0.0042	0.0058	0.0091	0.0160	0.0240	0.0310	0.0395	0.0482	0.0593	0.0820	0.1201	0.5404
2006	0.0120	0.0010	0.0011	0.0031	0.0041	0.0047	0.0058	0.0093	0.0160	0.0247	0.0324	0.0422	0.0497	0.0598	0.0807	0.1172	0.5362
2007	0.0116	0.0010	0.0011	0.0031	0.0040	0.0044	0.0058	0.0092	0.0160	0.0243	0.0317	0.0409	0.0489	0.0596	0.0813	0.1186	0.5383
Mean	0.0217	0.0020	0.0020	0.0047	0.0055	0.0061	0.0078	0.0107	0.0156	0.0223	0.0314	0.0434	0.0599	0.0812	0.1076	0.1359	0.4421

Table 3.39. Age at Death for All Females: 1-Cumulative Proportion

	Age at Death for All Females (1-Cumulative Proportion)																
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**
1968	0.9549	0.9505	0.9470	0.9405	0.9337	0.9271	0.9189	0.9059	0.8846	0.8530	0.8110	0.7553	0.6840	0.5891	0.4673	0.3199	0.1599
1969	0.9556	0.9514	0.9477	0.9408	0.9335	0.9267	0.9183	0.9056	0.8846	0.8534	0.8120	0.7565	0.6860	0.5916	0.4712	0.3255	0.1628
1970	0.9562	0.9522	0.9486	0.9417	0.9341	0.9270	0.9188	0.9064	0.8863	0.8548	0.8124	0.7564	0.6846	0.5907	0.4702	0.3250	0.1625
1971	0.9602	0.9563	0.9526	0.9455	0.9377	0.9305	0.9222	0.9104	0.8909	0.8605	0.8187	0.7639	0.6917	0.6008	0.4820	0.3366	0.1683
1972	0.9651	0.9613	0.9578	0.9507	0.9431	0.9358	0.9275	0.9162	0.8977	0.8682	0.8275	0.7734	0.7019	0.6085	0.4896	0.3439	0.1720
1973	0.9677	0.9642	0.9608	0.9537	0.9462	0.9389	0.9306	0.9195	0.9019	0.8734	0.8326	0.7786	0.7072	0.6154	0.4987	0.3551	0.1775
1974	0.9690	0.9659	0.9626	0.9559	0.9486	0.9411	0.9329	0.9224	0.9055	0.8783	0.8378	0.7850	0.7130	0.6208	0.5035	0.3627	0.1813
1975	0.9695	0.9665	0.9635	0.9567	0.9491	0.9416	0.9334	0.9230	0.9069	0.8805	0.8403	0.7866	0.7148	0.6220	0.5054	0.3647	0.1823
1976	0.9712	0.9684	0.9656	0.9591	0.9517	0.9442	0.9362	0.9263	0.9113	0.8864	0.8475	0.7945	0.7234	0.6311	0.5175	0.3780	0.1890
1977	0.9722	0.9695	0.9667	0.9598	0.9522	0.9447	0.9365	0.9265	0.9117	0.8878	0.8495	0.7965	0.7254	0.6321	0.5172	0.3795	0.1898
1978	0.9731	0.9705	0.9679	0.9613	0.9536	0.9460	0.9379	0.9281	0.9139	0.8911	0.8545	0.8023	0.7325	0.6402	0.5253	0.3881	0.1941
1979	0.9732	0.9708	0.9684	0.9620	0.9544	0.9469	0.9387	0.9286	0.9149	0.8937	0.8584	0.8068	0.7378	0.6457	0.5304	0.3928	0.1964
1980	0.9747	0.9724	0.9701	0.9641	0.9568	0.9495	0.9412	0.9316	0.9185	0.8984	0.8652	0.8149	0.7471	0.6554	0.5402	0.4031	0.2015
1981	0.9754	0.9734	0.9712	0.9658	0.9588	0.9514	0.9429	0.9332	0.9205	0.9011	0.8688	0.8190	0.7506	0.6591	0.5440	0.4086	0.2043
1982	0.9764	0.9744	0.9723	0.9674	0.9606	0.9534	0.9453	0.9356	0.9228	0.9043	0.8737	0.8253	0.7562	0.6653	0.5491	0.4111	0.2056
1983	0.9778	0.9760	0.9741	0.9695	0.9633	0.9563	0.9485	0.9390	0.9264	0.9086	0.8794	0.8322	0.7641	0.6746	0.5584	0.4204	0.2102
1984	0.9787	0.9770	0.9751	0.9706	0.9645	0.9577	0.9497	0.9398	0.9269	0.9093	0.8818	0.8363	0.7688	0.6799	0.5639	0.4250	0.2125
1985	0.9796	0.9778	0.9761	0.9718	0.9661	0.9595	0.9514	0.9414	0.9288	0.9115	0.8849	0.8414	0.7748	0.6872	0.5728	0.4337	0.2168
1986	0.9801	0.9784	0.9768	0.9723	0.9667	0.9598	0.9513	0.9409	0.9278	0.9108	0.8850	0.8439	0.7784	0.6904	0.5760	0.4369	0.2185
1987	0.9804	0.9788	0.9773	0.9730	0.9676	0.9606	0.9519	0.9412	0.9281	0.9108	0.8856	0.8457	0.7822	0.6945	0.5822	0.4434	0.2217
1988	0.9807	0.9790	0.9774	0.9732	0.9681	0.9612	0.9525	0.9418	0.9285	0.9112	0.8867	0.8482	0.7865	0.7005	0.5901	0.4520	0.2260
1989	0.9802	0.9785	0.9768	0.9727	0.9678	0.9610	0.9520	0.9412	0.9272	0.9097	0.8852	0.8481	0.7882	0.7021	0.5924	0.4533	0.2267
1990	0.9812	0.9796	0.9780	0.9740	0.9694	0.9628	0.9538	0.9427	0.9285	0.9104	0.8860	0.8499	0.7912	0.7052	0.5961	0.4577	0.2288
1991	0.9819	0.9803	0.9788	0.9750	0.9703	0.9641	0.9550	0.9436	0.9287	0.9103	0.8860	0.8505	0.7938	0.7096	0.6001	0.4631	0.2316
1992	0.9828	0.9814	0.9799	0.9764	0.9719	0.9659	0.9571	0.9452	0.9302	0.9112	0.8867	0.8520	0.7972	0.7147	0.6037	0.4675	0.2337
1993	0.9841	0.9825	0.9809	0.9775	0.9732	0.9674	0.9587	0.9468	0.9319	0.9127	0.8881	0.8545	0.8025	0.7230	0.6143	0.4796	0.2398
1994	0.9849	0.9835	0.9819	0.9785	0.9743	0.9687	0.9598	0.9475	0.9322	0.9122	0.8870	0.8536	0.8037	0.7262	0.6177	0.4844	0.2422
1995	0.9862	0.9848	0.9832	0.9796	0.9757	0.9703	0.9617	0.9492	0.9334	0.9132	0.8877	0.8545	0.8057	0.7311	0.6241	0.4914	0.2457
1996	0.9868	0.9855	0.9839	0.9805	0.9768	0.9717	0.9637	0.9518	0.9361	0.9152	0.8896	0.8568	0.8091	0.7366	0.6311	0.4975	0.2488
1997	0.9874	0.9860	0.9845	0.9810	0.9774	0.9726	0.9654	0.9541	0.9384	0.9180	0.8916	0.8579	0.8112	0.7414	0.6384	0.5040	0.2520
1998	0.9873	0.9861	0.9847	0.9814	0.9779	0.9735	0.9666	0.9554	0.9397	0.9196	0.8932	0.8595	0.8138	0.7463	0.6445	0.5106	0.2553
1999	0.9882	0.9869	0.9856	0.9823	0.9788	0.9745	0.9682	0.9574	0.9418	0.9213	0.8946	0.8604	0.8153	0.7501	0.6526	0.5181	0.2591
2000	0.9883	0.9872	0.9859	0.9827	0.9791	0.9749	0.9688	0.9582	0.9422	0.9212	0.8933	0.8587	0.8136	0.7500	0.6554	0.5213	0.2606
2001	0.9885	0.9874	0.9862	0.9831	0.9794	0.9751	0.9688	0.9581	0.9416	0.9196	0.8903	0.8548	0.8097	0.7479	0.6560	0.5244	0.2622
2002	0.9886	0.9876	0.9862	0.9830	0.9793	0.9752	0.9691	0.9588	0.9420	0.9192	0.8900	0.8533	0.8079	0.7476	0.6583	0.5293	0.2647
2003	0.9885	0.9875	0.9863	0.9831	0.9791	0.9749	0.9688	0.9589	0.9423	0.9190	0.8892	0.8513	0.8040	0.7442	0.6579	0.5312	0.2656
2004	0.9882	0.9871	0.9858	0.9825	0.9785	0.9742	0.9682	0.9587	0.9421	0.9179	0.8873	0.8480	0.7995	0.7390	0.6540	0.5303	0.2652
2005	0.9887	0.9877	0.9866	0.9835	0.9796	0.9754	0.9697	0.9606	0.9446	0.9206	0.8896	0.8501	0.8018	0.7425	0.6605	0.5404	0.2702
2006	0.9880	0.9871	0.9860	0.9828	0.9787	0.9740	0.9682	0.9589	0.9429	0.9182	0.8858	0.8436	0.7939	0.7341	0.6534	0.5362	0.2681
2007	0.9884	0.9874	0.9863	0.9832	0.9792	0.9747	0.9689	0.9597	0.9438	0.9194	0.8877	0.8468	0.7979	0.7383	0.6570	0.5383	0.2692
Mean	0.9783	0.9762	0.9742	0.9695	0.9639	0.9578	0.9500	0.9393	0.9237	0.9014	0.8701	0.8267	0.7668	0.6856	0.5781	0.4421	0.2211



All costs reported in red italics are in thousands.

Table 3.40. Premature Mortality: Female Homicides

	Age in 2007 (Females)																
Year	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45-49**	**50-54**	**55-59**	**60-64**	**65-69**	**70-74**	**75-79**	**80+**
1968									165	55	46	180	293	210	154	106	51
1969									151	40	63	219	300	233	177	98	51
1970								179	49	77	246	394	296	195	160	109	41
1971								208	61	87	290	396	331	235	183	115	50
1972								172	45	89	336	476	335	253	158	113	49
1973								216	51	93	388	555	390	288	215	132	54
1974								204	55	79	416	570	438	312	201	128	47
1975							192	70	89	449	608	470	338	243	179	112	44
1976							219	56	84	384	591	466	301	215	145	102	41
1977							212	84	99	423	619	487	326	236	162	92	40
1978							206	74	112	420	639	504	334	232	162	90	42
1979							213	69	77	457	705	552	359	245	161	116	37
1980						223	72	109	469	788	656	442	332	199	138	90	33
1981						241	57	87	411	703	612	495	286	198	147	75	38
1982						246	75	88	413	713	628	455	312	208	129	87	33
1983						230	61	69	360	650	633	432	306	209	138	75	38
1984						260	80	117	364	695	624	434	317	210	126	67	34
1985					250	80	85	336	606	667	540	391	244	166	104	70	33
1986					275	63	93	403	696	748	545	397	262	151	105	60	32
1987					278	60	94	374	682	745	606	416	267	172	106	68	31
1988					318	78	105	369	660	796	634	410	267	153	101	70	30
1989					338	88	112	380	621	724	608	429	285	166	103	61	30
1990				315	83	122	450	622	731	690	480	305	196	113	82	53	26
1991				356	65	110	446	731	738	733	517	353	242	137	87	69	33
1992				322	66	139	418	652	722	669	495	358	214	138	65	53	29
1993				331	87	154	476	682	746	717	534	385	230	121	82	51	30
1994				333	78	130	433	606	633	656	577	321	208	125	72	50	25
1995			327	69	115	502	523	596	648	544	399	232	113	67	57	53	28
1996			365	83	114	403	461	496	548	529	353	273	92	69	59	50	23
1997			293	76	80	371	446	449	496	485	366	259	103	70	60	46	25
1998			318	82	112	332	431	457	446	484	389	244	89	57	50	40	22
1999			221	76	76	294	400	375	372	402	314	194	73	53	46	36	21
2000		212	212	50	70	263	366	329	338	408	310	213	77	57	50	36	17
2001		219	219	48	56	231	385	357	357	398	329	209	90	65	57	46	21
2002		226	226	56	64	255	397	332	351	369	317	231	98	55	48	32	16
2003		230	230	50	55	249	462	357	368	372	339	272	109	59	52	37	19
2004		253	252	48	66	288	386	359	336	311	362	275	105	78	69	44	16
2005	152	40	69	210	347	301	273	317	289	229	134	93	59	49	42	35	29
2006	226	65	67	293	407	408	301	362	338	288	224	134	87	51	42	29	35
2007	189	53	68	252	377	355	287	339	313	259	179	113	73	50	42	32	32
Total	568	1,299	2,868	3,050	3,777	6,474	9,219	12,082	15,094	18,423	17,650	14,035	9,179	6,142	4,321	2,827	1,326

Market Productivity Value (MPV) By Age		$5,057	$16,834	$28,335	$29,707	$33,543	$35,955	$37,045	$36,861	$30,497	$21,322	$6,528	$2,919	$1,271	$646
Lost MPV By Age		*$15,422*	*$63,589*	*$183,450*	*$273,864*	*$405,258*	*$542,714*	*$682,502*	*$650,578*	*$428,029*	*$195,721*	*$40,098*	*$12,612*	*$3,593*	*$856*
Lost MPV With Attribution	0.12	*$1,851*	*$7,631*	*$22,014*	*$32,864*	*$48,631*	*$65,126*	*$81,900*	*$78,069*	*$51,363*	*$23,487*	*$4,812*	*$1,513*	*$431*	*$103*
Total Lost MPV	*$419,794*														
Household Production Value (HPV) By Age		$7,597	$12,801	$18,826	$22,337	$22,150	$20,588	$17,911	$16,369	$17,036	$17,702	$18,408	$17,550	$16,510	$12,862
Lost HPV By Age		*$23,169*	*$48,352*	*$121,889*	*$205,920*	*$267,613*	*$310,756*	*$329,986*	*$288,916*	*$239,102*	*$162,491*	*$113,070*	*$75,829*	*$46,675*	*$17,051*
Lost HPV With Attribution	0.12	*$2,780*	*$5,802*	*$14,627*	*$24,710*	*$32,114*	*$37,291*	*$39,598*	*$34,670*	*$28,692*	*$19,499*	*$13,568*	*$9,099*	*$5,601*	*$2,046*
Total Lost HPV	*$270,098*														
Total Production Value (TPV) By Age		*$38,591*	*$111,941*	*$305,338*	*$479,784*	*$672,871*	*$853,470*	*$1,012,488*	*$939,494*	*$667,131*	*$358,213*	*$153,168*	*$88,441*	*$50,268*	*$17,907*
Lost TPV With Attribution	0.12	*$4,631*	*$13,433*	*$36,641*	*$57,574*	*$80,745*	*$102,416*	*$121,499*	*$112,739*	*$80,056*	*$42,986*	*$18,380*	*$10,613*	*$6,032*	*$2,149*
Total Lost TPV	*$689,893*														

All costs reported in red italics are in thousands.

All costs reported in red italics are in thousands.

Appendix D.

Refer to Chapter 3

Statistical Tables for Present Discounted Value

Table 3.41. Lost Productivity for Premature Mortality (Present Discounted Value) 94
Table 3.42. Lost Productivity for Homicide (Present Discounted Value). 95

Source (Tables 3.41–3.42): Grosse et al., 2009

All costs reported in red italics are in thousands.

Table 3.41. Lost Productivity for Premature Mortality (Present Discounted Value)

	Lifetime Productivity						Deaths	Lost Productivity					
	TPV			MPV				TPV			MPV		
Discount	**0%**	**3%**	**5%**	**0%**	**3%**	**5%**	**(n)**	**0%**	**3%**	**5%**	**0%**	**3%**	**5%**
Sex													
Males													
0–4	$4,693,378	$1,311,631	$628,941	$3,642,720	$1,055,542	$509,777	28	*$131,415*	*$36,726*	*$17,610*	*$101,996*	*$29,555*	*$14,274*
5–9	$4,477,640	$1,450,507	$765,688	$3,475,277	$1,167,304	$620,615	4	*$17,911*	*$5,802*	*$3,063*	*$13,901*	*$4,669*	*$2,482*
10–14	$4,263,437	$1,601,092	$930,483	$3,309,026	$1,288,488	$754,187	18	*$76,742*	*$28,820*	*$16,749*	*$59,562*	*$23,193*	*$13,575*
15–19	$4,044,557	$1,748,121	$1,110,093	$3,143,437	$1,411,865	$905,053	498	*$2,014,189*	*$870,564*	*$552,826*	*$1,565,432*	*$703,109*	*$450,716*
20–24	$3,780,128	$1,844,798	$1,258,288	$2,943,468	$1,498,868	$1,035,988	1,527	*$5,770,365*	*$2,816,084*	*$1,920,777*	*$4,493,204*	*$2,288,022*	*$1,581,436*
25–29	$3,427,916	$1,844,830	$1,327,228	$2,662,002	$1,498,314	$1,094,516	1,820	*$6,238,807*	*$3,357,591*	*$2,415,555*	*$4,844,844*	*$2,726,931*	*$1,992,019*
30–34	$2,990,567	$1,738,369	$1,300,327	$2,305,038	$1,404,556	$1,068,787	1,866	*$5,578,903*	*$3,242,927*	*$2,425,760*	*$4,300,048*	*$2,620,199*	*$1,993,822*
35–39	$2,521,845	$1,565,688	$1,210,037	$1,920,278	$1,253,824	$988,265	2,290	*$5,775,025*	*$3,585,426*	*$2,770,985*	*$4,397,437*	*$2,871,257*	*$2,263,127*
40–44	$2,057,228	$1,354,530	$1,078,213	$1,535,803	$1,067,628	$869,329	3,265	*$6,716,849*	*$4,422,540*	*$3,520,365*	*$5,014,397*	*$3,485,805*	*$2,838,359*
45–49	$1,616,414	$1,122,073	$918,016	$1,168,503	$860,435	$722,714	3,647	*$5,895,062*	*$4,092,200*	*$3,348,004*	*$4,261,530*	*$3,138,006*	*$2,635,738*
50–54	$1,206,118	$874,833	$732,563	$823,247	$636,629	$549,561	2,931	*$3,535,132*	*$2,564,136*	*$2,147,142*	*$2,412,937*	*$1,865,960*	*$1,610,763*
55–59	$843,765	$632,108	$538,397	$519,056	$416,060	$366,678	1,555	*$1,312,055*	*$982,928*	*$837,207*	*$807,132*	*$646,973*	*$570,184*
60–64	$551,914	$421,378	$362,170	$284,083	$231,736	$206,489	566	*$312,383*	*$238,500*	*$204,988*	*$160,791*	*$131,163*	*$116,873*
65–69	$352,992	$272,429	$234,750	$139,257	$112,185	$99,095	234	*$82,600*	*$63,748*	*$54,932*	*$32,586*	*$26,251*	*$23,188*
70–74	$240,568	$191,289	$167,358	$79,092	$64,308	$57,035	111	*$26,703*	*$21,233*	*$18,577*	*$8,779*	*$7,138*	*$6,331*
75–79	$161,490	$131,923	$117,009	$46,641	$35,286	$31,434	60	*$9,689*	*$7,915*	*$7,021*	*$2,798*	*$2,117*	*$1,886*
80 and over	$111,999	$94,191	$84,811	$19,654	$17,213	$15,878	91	*$10,136*	*$8,524*	*$7,675*	*$1,779*	*$1,558*	*$1,437*
Total							20,510	*$43,503,966*	*$26,345,664*	*$20,269,236*	*$32,479,154*	*$20,571,907*	*$16,116,211*
Attribution	0.82							*$35,673,252*	*$21,603,445*	*$16,620,774*	*$26,632,906*	*$16,868,964*	*$13,215,293*
Females													
0–4	$3,951,799	$1,087,261	$525,518	$2,104,312	$622,653	$304,664	19	*$75,084*	*$20,658*	*$9,985*	*$39,982*	*$11,830*	*$5,789*
5–9	$3,768,255	$1,201,797	$639,475	$2,006,576	$688,245	$370,729	3	*$11,305*	*$3,605*	*$1,918*	*$6,020*	*$2,065*	*$1,112*
10–14	$3,587,568	$1,326,408	$777,016	$1,910,361	$759,607	$450,467	16	*$57,401*	*$21,223*	*$12,432*	*$30,566*	*$12,154*	*$7,207*
15–19	$3,392,917	$1,439,351	$918,713	$1,810,004	$828,706	$537,306	163	*$553,045*	*$234,614*	*$149,750*	*$295,031*	*$135,079*	*$87,581*
20–24	$3,140,416	$1,491,416	$1,015,066	$1,678,185	$866,123	$602,417	463	*$1,452,442*	*$689,780*	*$469,468*	*$776,161*	*$400,582*	*$278,618*
25–29	$2,816,466	$1,460,296	$1,039,955	$1,496,005	$847,313	$618,969	635	*$1,787,048*	*$926,558*	*$659,851*	*$949,215*	*$537,620*	*$392,736*
30–34	$2,447,841	$1,361,188	$1,002,209	$1,286,575	$787,753	$598,261	750	*$1,835,881*	*$1,020,891*	*$751,657*	*$964,931*	*$590,815*	*$448,696*
35–39	$2,076,515	$1,229,570	$932,905	$1,076,076	$710,210	$560,805	1,155	*$2,398,375*	*$1,420,153*	*$1,077,505*	*$1,242,868*	*$820,293*	*$647,730*
40–44	$1,713,660	$1,073,246	$836,630	$861,132	$608,829	$498,625	1,756	*$3,008,330*	*$1,884,083*	*$1,468,704*	*$1,511,717*	*$1,068,799*	*$875,336*
45–49	$1,372,246	$903,964	$722,490	$648,683	$488,452	$414,083	1,985	*$2,723,222*	*$1,793,917*	*$1,433,781*	*$1,287,311*	*$969,333*	*$821,748*
50–54	$1,057,483	$727,693	$594,551	$443,947	$353,119	$308,794	1,483	*$1,568,247*	*$1,079,169*	*$881,719*	*$658,373*	*$523,675*	*$457,942*
55–59	$775,575	$551,675	$458,088	$261,424	$216,941	$194,501	759	*$588,274*	*$418,445*	*$347,460*	*$198,290*	*$164,550*	*$147,529*
60–64	$542,695	$394,674	$330,738	$123,083	$104,482	$95,083	308	*$167,150*	*$121,560*	*$101,867*	*$37,910*	*$32,180*	*$29,286*
65–69	$375,466	$278,664	$235,155	$45,409	$37,681	$33,861	165	*$61,952*	*$45,980*	*$38,801*	*$7,492*	*$6,217*	*$5,587*
70–74	$268,487	$206,591	$177,479	$20,589	$16,938	$15,143	91	*$24,432*	*$18,800*	*$16,151*	*$1,874*	*$1,541*	*$1,378*
75–79	$187,882	$149,780	$131,025	$10,221	$7,463	$6,616	69	*$12,964*	*$10,335*	*$9,041*	*$705*	*$515*	*$457*
80 and over	$130,803	$107,955	$96,140	$3,781	$3,265	$2,988	136	*$17,789*	*$14,682*	*$13,075*	*$514*	*$444*	*$406*
Total							9,954	*$16,342,942*	*$9,724,452*	*$7,443,166*	*$8,008,960*	*$5,277,693*	*$4,209,136*
Attribution	0.82							*$13,401,212*	*$7,974,051*	*$6,103,396*	*$6,567,347*	*$4,327,708*	*$3,451,492*

All costs reported in red italics are in thousands.

Table 3.42. Lost Productivity for Homicide (Present Discounted Value)

	Lifetime Productivity						Deaths	Lost Productivity					
	TPV			MPV				TPV			MPV		
Discount	**0%**	**3%**	**5%**	**0%**	**3%**	**5%**	**(n)**	**0%**	**3%**	**5%**	**0%**	**3%**	**5%**
Sex													
Males													
0–4	$4,693,378	$1,311,631	$628,941	$3,642,720	$1,055,542	$509,777	276	*$1,295,372*	*$362,010*	*$173,588*	*$1,005,391*	*$291,330*	*$140,698*
5–9	$4,477,640	$1,450,507	$765,688	$3,475,277	$1,167,304	$620,615	61	*$270,897*	*$87,756*	*$46,324*	*$210,254*	*$70,622*	*$37,547*
10–14	$4,263,437	$1,601,092	$930,483	$3,309,026	$1,288,488	$754,187	137	*$584,091*	*$219,350*	*$127,476*	*$453,337*	*$176,523*	*$103,324*
15–19	$4,044,557	$1,748,121	$1,110,093	$3,143,437	$1,411,865	$905,053	1,750	*$7,075,952*	*$3,058,338*	*$1,942,108*	*$5,499,443*	*$2,470,058*	*$1,583,390*
20–24	$3,780,128	$1,844,798	$1,258,288	$2,943,468	$1,498,868	$1,035,988	2,738	*$10,349,990*	*$5,051,057*	*$3,445,193*	*$8,059,215*	*$4,103,901*	*$2,836,535*
25–29	$3,427,916	$1,844,830	$1,327,228	$2,662,002	$1,498,314	$1,094,516	2,145	*$7,352,880*	*$3,957,160*	*$2,846,904*	*$5,709,994*	*$3,213,884*	*$2,347,737*
30–34	$2,990,567	$1,738,369	$1,300,327	$2,305,038	$1,404,556	$1,068,787	1,499	*$4,482,860*	*$2,605,815*	*$1,949,190*	*$3,455,252*	*$2,105,429*	*$1,602,112*
35–39	$2,521,845	$1,565,688	$1,210,037	$1,920,278	$1,253,824	$988,265	1,069	*$2,695,852*	*$1,673,720*	*$1,293,530*	*$2,052,777*	*$1,340,338*	*$1,056,455*
40–44	$2,057,228	$1,354,530	$1,078,213	$1,535,803	$1,067,628	$869,329	966	*$1,987,282*	*$1,308,476*	*$1,041,554*	*$1,483,586*	*$1,031,329*	*$839,772*
45–49	$1,616,414	$1,122,073	$918,016	$1,168,503	$860,435	$722,714	824	*$1,331,925*	*$924,588*	*$756,445*	*$962,846*	*$708,998*	*$595,516*
50–54	$1,206,118	$874,833	$732,563	$823,247	$636,629	$549,561	586	*$706,182*	*$512,215*	*$428,916*	*$482,011*	*$372,746*	*$321,768*
55–59	$843,765	$632,108	$538,397	$519,056	$416,060	$366,678	367	*$309,662*	*$231,984*	*$197,592*	*$190,494*	*$152,694*	*$134,571*
60–64	$551,914	$421,378	$362,170	$284,083	$231,736	$206,489	239	*$131,631*	*$100,499*	*$86,378*	*$67,754*	*$55,269*	*$49,248*
65–69	$352,992	$272,429	$234,750	$139,257	$112,185	$99,095	127	*$44,830*	*$34,598*	*$29,813*	*$17,686*	*$14,247*	*$12,585*
70–74	$240,568	$191,289	$167,358	$79,092	$64,308	$57,035	115	*$27,545*	*$21,903*	*$19,162*	*$9,056*	*$7,363*	*$6,531*
75–79	$161,490	$131,923	$117,009	$46,641	$35,286	$31,434	80	*$12,838*	*$10,488*	*$9,302*	*$3,708*	*$2,805*	*$2,499*
80 and over	$111,999	$94,191	$84,811	$19,654	$17,213	$15,878	79	*$8,848*	*$7,441*	*$6,700*	*$1,553*	*$1,360*	*$1,254*
Total							13,055	*$38,668,640*	*$20,167,397*	*$14,400,174*	*$29,664,356*	*$16,118,896*	*$11,671,542*
Attribution	0.12							*$4,640,237*	*$2,420,088*	*$1,728,021*	*$3,559,723*	*$1,934,267*	*$1,400,585*
Females													
0–4	3,951,799	1,087,261	525,518	2,104,312	622,653	304,664	192	*$756,770*	*$208,210*	*$100,637*	*$402,976*	*$119,238*	*$58,343*
5–9	3,768,255	1,201,797	639,475	2,006,576	688,245	370,729	54	*$201,602*	*$64,296*	*$34,212*	*$107,352*	*$36,821*	*$19,834*
10–14	3,587,568	1,326,408	777,016	1,910,361	759,607	450,467	69	*$247,542*	*$91,522*	*$53,614*	*$131,815*	*$52,413*	*$31,082*
15–19	3,392,917	1,439,351	918,713	1,810,004	828,706	537,306	256	*$868,587*	*$368,474*	*$235,191*	*$463,361*	*$212,149*	*$137,550*
20–24	3,140,416	1,491,416	1,015,066	1,678,185	866,123	602,417	385	*$1,209,060*	*$574,195*	*$390,800*	*$646,101*	*$333,457*	*$231,931*
25–29	2,816,466	1,460,296	1,039,955	1,496,005	847,313	618,969	364	*$1,025,194*	*$531,548*	*$378,544*	*$544,546*	*$308,422*	*$225,305*
30–34	2,447,841	1,361,188	1,002,209	1,286,575	787,753	598,261	297	*$725,785*	*$403,592*	*$297,155*	*$381,469*	*$233,569*	*$177,384*
35–39	2,076,515	1,229,570	932,905	1,076,076	710,210	560,805	354	*$734,048*	*$434,653*	*$329,782*	*$380,393*	*$251,059*	*$198,245*
40–44	1,713,660	1,073,246	836,630	861,132	608,829	498,625	332	*$568,935*	*$356,318*	*$277,761*	*$285,896*	*$202,131*	*$165,544*
45–49	1,372,246	903,964	722,490	648,683	488,452	414,083	282	*$386,287*	*$254,466*	*$203,381*	*$182,604*	*$137,499*	*$116,564*
50–54	1,057,483	727,693	594,551	443,947	353,119	308,794	202	*$213,612*	*$146,994*	*$120,099*	*$89,677*	*$71,330*	*$62,376*
55–59	775,575	551,675	458,088	261,424	216,941	194,501	134	*$103,927*	*$73,924*	*$61,384*	*$35,031*	*$29,070*	*$26,063*
60–64	542,695	394,674	330,738	123,083	104,482	95,083	92	*$49,657*	*$36,113*	*$30,263*	*$11,262*	*$9,560*	*$8,700*
65–69	375,466	278,664	235,155	45,409	37,681	33,861	68	*$25,532*	*$18,949*	*$15,991*	*$3,088*	*$2,562*	*$2,303*
70–74	268,487	206,591	177,479	20,589	16,938	15,143	64	*$17,183*	*$13,222*	*$11,359*	*$1,318*	*$1,084*	*$969*
75–79	187,882	149,780	131,025	10,221	7,463	6,616	59	*$11,085*	*$8,837*	*$7,730*	*$603*	*$440*	*$390*
80 and over	130,803	107,955	96,140	3,781	3,265	2,988	119	*$15,566*	*$12,847*	*$11,441*	*$450*	*$389*	*$356*
Total							3,320	*$7,160,370*	*$3,598,160*	*$2,559,342*	*$3,667,942*	*$2,001,194*	*$1,462,939*
Attribution	0.12							*$859,244*	*$431,779*	*$307,121*	*$440,153*	*$240,143*	*$175,553*

All costs reported in red italics are in thousands.

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Acronym Glossary

ADSS	Alcohol and Drug Services Study
AHRQ	Agency for Healthcare Research and Quality
AOUSC	Administrative Office of the United States Courts
ATUS	American Time Use Survey
BJS	Bureau of Justice Statistics
COI	Cost of Illness
HPV	Household Productivity Value
LOS	length of stay
MCODPUD	Multiple Cause of Death Public Use Data
MPV	Market Productivity Value
NCHS	National Center for Health Statistics
NCVS	National Criminal Victimization Survey
NDIC	National Drug Intelligence Center
NEDS	Nationwide Emergency Department Sample
NIS	Nationwide Inpatient Sample
NSDUH	National Survey on Drug Use and Health
N-SSATS	National Survey of Substance Abuse Treatment Services
ONDCP	Office of National Drug Control Policy
SAMHSA	Substance Abuse and Mental Health Services Administration
SATCAAT	Substance Abuse Treatment Cost Allocation and Analysis Template
SIFCF	Survey of Inmates in Federal Correctional Facilities
SILJ	Survey of Inmates in Local Jails
SISCF	Survey of Inmates in State Correctional Facilities
TEDS-A	Treatment Episode Data Set-Admissions
TEDS-D	Treatment Episode Data Set-Discharges
TPV	Total Productivity Value
UCR	Uniform Crime Report
VA	Veterans Administration

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