Changing Age Distributions of Lethal Violence:

A Look at the Intermountain West

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Today I want to tell you about work that I, and my colleague Robert O'Brien, have done on lethal violence. We have focused on violence directed toward others, homicide, and violence directed toward one's self, suicide. At first glance, they may seem strikingly different. We often think of violence directed toward others as involving impetuous, unbridled anger and aggression, while we think of suicide as stemming from deep despair, depression and hopelessness. Yet, we have found that these two forms of lethal violence are similar in two very important ways. First, the age distribution of both phenomena has changed in recent years, with younger people becoming relatively more at risk for both types of behavior. Second, the explanations for this changing age distribution are the same for both suicide and for homicide.

[slide 2 – outline] In the moments to come I want to first just talk a little bit about the nature of cohorts and cohort theory and then describe the nature of cohort differences in lethal violence that we have found using national data. Third, I will show you data on regional differences in lethal violence, using a data set that we have not yet published on and focusing primarily on rates among teens. After that I will tell you about explanations that we have found for these cohort variations. Finally, I'll step back from these analyses and reflect upon the implications of our work for social policy. I want to stress that some of what I will show you is preliminary in nature. We haven't yet submitted our findings about regional differences for publication or finalized our analyses. In fact, you are the first people to hear about them. Thus, I will be especially interested in any comments or suggestions that you might have for our future explorations.

I. The Nature of Cohorts and Cohort Theory

Let me first briefly discuss a concept that is central to our analysis – the idea of birth cohorts. The term cohort simply refers to a group of people that have some type of experience

in common. Birth cohort refers to people who were born at the same point in time, much like the word generation.

To give you a feel for the kinds of differences that we have looked at, I've listed in this slide the birth cohorts that we have used in many of our analyses. [slide 3] The first and second columns simply assign numbers to each generation and tell us what year they were born. The third and fourth columns give the year in which a particular cohort was in their teens and in their early 40s, and the final column tells us how old they were in the year 2000.

We can think about ourselves and our families as we look at this list of generations. For instance, my father was part of "cohort 1," born in 1916 and my mother, who was born in 1920, was in the early part of the 1920s economic boom time generation. They were in their teens during much of the depression and were young adults during World War II. My husband and I are part of the baby boom generation, the group of people born after the end of World War II through the early part of the 1960s. We are part of "cohort 7," born in the late 1940s. We experienced the relative prosperity and stability of a childhood and teen years in the 50s and early 1960s, and were young adults in the more turbulent late 60s and 70s. Our children were born from 1979 through 1986 (cohorts 13, 14 and 15 (one not yet on the table). This was a time of much smaller birth cohorts (what is often termed a baby bust) as well as a time of rapid change, especially within families.

When we say that a cohort effect occurs, we mean that there is something different about us – perhaps our attitudes, our views toward life, or our behaviors – that is associated with our cohort. It is separate from how old we are, and thus persists throughout our life. It is also separate from a particular historical period, and thus persists over various historical eras. In other words, cohort differences must be analytically distinct from those associated with age and period. In a statistical sense, they must appear after the effects of age and historical period are controlled. Cohort effects have been found in a number of areas of research including political views, parental values, attitudes regarding gender and race-ethnicity, and even intellectual skills. For instance, a major reason that levels of racial-ethnic animosity have declined in the United States is the result of older cohorts with more prejudiced views dieing off

and being replaced by younger, more accepting cohorts. People born in more recent cohorts tend to have more tolerant views.

My work with Professor O'Brien has concentrated on cohort variations in lethal violence and explaining why these cohort differences exist.

II. The Changing Age Distributions of Lethal Violence

Perhaps the easiest way to understand these cohort variations is to look at the changing age distribution of lethal violence. We began our work by looking at rates of homicide offending using data from the Uniform Crime Reports, the data provided by local police jurisdictions to the FBI regarding offenses in their jurisdictions. Figure 1 shows the general pattern of changes that have occurred from 1960 to 2000. [slide 5] In 1960, the first year for which reliable data are available for the entire nation, the highest rates were found among people in their twenties and thirties. But by 2000, the overall shape of the age distribution had shifted, with teens and those in their early twenties having far higher rates than members of any other age group. Young people in the year 2000 – more recent birth cohorts – were far more likely to be committing homicide than young people of earlier generations. [If needed, note that those born in 75-84, were 15-24 in 2000, those born 1940-49 weere 15-24 in 1960 – these cohorts include my children and me, respectively] [figure is Figure 1 from PSA talk]

Because national-level data on homicide offenses are available only from 1960 on, we have also examined data on homicide deaths. The characteristics of people who commit homicides are very similar to those of people who are its victims. For instance, victims of homicide tend to be similar in age (although usually a little bit older), and very similar in race-ethnicity, to offenders. Most importantly for our interests, data on deaths from homicide are available for much of the twentieth century. That means that we can examine data for a much broader group of cohorts. When we examined these data, we found similar patterns of changes in the age distribution. More recent birth cohorts are more likely than earlier cohorts to be victims of homicide, as can be seen in this slide. [slide 6] In 1930 and 1955, the modal age for homicide victimization – the age at which more people died at homicide—was the late 20s, but by 2000, this modal age had shifted to the early 20s and people in their teens were far more

likely to die of homicide than in earlier periods. In addition, while rates are higher for teens in 2000 than in the earlier years, the rates among older age groups are substantially smaller than in earlier periods.[figure in excel file – sheet 3 – suicidehomicide for all years and ages 1930-2000 correct march 2003]

As I mentioned earlier, our definition of lethal violence includes not just homicides – violence directed toward others – but also suicide, violence directed toward oneself. Traditionally, these two forms of lethal violence have had strikingly different age distributions. Statistics available from European countries from the late 18th century forward indicate that, as long as records have been kept, suicides in western societies have been much more common among people at older age ranges than people at young ages. The data for 1930 and 1955 in this slide [slide 7] illustrate this pattern, with relatively low rates for young people and a gradual rise through the older age groups. The data for 2000 indicate, however, a very different pattern, one that first arose around 1990. Today suicide rates rise rapidly for those in younger age groups and remain relatively constant or even decline somewhat among older age groups. [slide 7 – from psa talk – figure 2]

The changing age patterns shown in these graphs indicate cohort differences. For instance, in the graph for suicide deaths, people who were teens (15-19 years old) in 1930 were members of a cohort born before World War I. Those who were teens in 1955 were depression babies, born in the latter part of the Great Depression; and those who were teens in 2000 were part of Gen Y, born between 1980 and 1984. As you can see, members of these different birth cohorts have strikingly different chances of dying from suicide. Our statistical analyses indicate that the differences in risk from one cohort to another continue throughout life. While, of course, we've not been able to follow members of Generation X and Y throughout their life course, we do have data over a long span of ages for members of earlier cohorts. Our analyses indicate that some birth cohorts have higher rates of lethal violence no matter what their age or the given period in history. Later on I'll tell you more about why these differences appear, but now let me move to an analysis of regional differences in lethal violence.

III. Regional Variations in Lethal Violence

4

[slide 8] Our analyses over the last few years have all involved data for the entire United States (as in the last few slides) or, in some of our work, for other western, industrialized countries. Yet, we know that there are regional differences in the magnitude of lethal violence. For instance, a great deal of work has focused on a "southern culture of violence," with high homicide rates in the southern U.S. Similarly, the intermountain region has been noted for its high suicide rates. I have not, however, found any literature about variations in age patterns of lethal violence in different regions, so I investigated this issue for my talk today.

Let me first show you data about differences lethal violence across regions of the United States and then focus on the intermountain states. Much of my focus will be on rates for teens, those 15 to 19 years of age, using data come from the U.S. Bureau of Vital Statistics and cover the years 1968 through 1998. My unit of analysis is states. That is, I'll examine average rates across the states. In doing so states with smaller populations, such as Wyoming and Oregon, have just as much weight as those with larger populations, such as California (nice to be equal for a change, huh?). I chose to do this because my ultimate goal is to think about policy issues – Policies regarding issues such as lethal violence are often made at the state level and it is thus important to give each state an equal weight so that we can see how problems we must deal with, as well as the resources we have to combat them, compare with those in other states.

In discussing regions I've used categories developed by the U.S. Government. [slide 9 - map], examining 5 large regions: the Northeast, the South, the Midwest, Pacific States, and the Intermountain Region. [Go through regions using map on slide and list.]

States and Regions in Analysis

Northeast	Midwest	South	Mountain	Pacific
Maine	Ohio	Delaware	Montana	Wash.
New Hampshire	Indiana	Maryland	Idaho	Ore.
Vermont	Illinois	District of Col.	Wyoming	Calif.
Massachusetts	Michigan	Virginia	Colorado	Alaska
Rhode Island	Wisconsin	West Virginia	New Mexico	Hawaii
Connecticut	Minnesota	North Carolina	Arizona	

New York	Iowa	South Carolina	Utah	
New Jersey	Missouri	Georgia		Nevada
Pennsylvania	North Dakota	Florida		
	South Dakota	Kentucky		
	Nebraska	Tennessee		
	Kansas	Alabama		
		Mississippi		
		Arkansas		
		Louisiana		
		Oklahoma		
		Texas		

You can see that these categories reflect broad cultural differences. In general, Seattle is different than Laramie and both are different from Boston, Chicago, and New Orleans. At the same time, there are of course variations within the areas. For instance, Laramie is different from Phoenix and Denver, even though all of these communities are within the same larger geographic region. In addition, parts of one area may actually be more similar to other areas. West Texas may be more like the Mountain states than the Southern states. Eastern Washington and Oregon are definitely more like the mountain states than the Pacific states. Nevertheless, these regions probably reflect general cultural boundaries. And the regions that are somewhat less appropriately classified are only a small proportion of a state's population. Most important, state boundaries represent political entities that are responsible for policies. And thus, I've chosen to keep them for this analysis.

Regional Differences in Magnitude and Trends

Let's first look at regional differences in Homicide rates. As before these are the number of homicides that occur for each 100,000 residents, but here I am looking only at rates for teens, those 15-19 years of age. This slide [slide 10] displays the average rates of Homicide for teenagers in states in each region. As you can see, the differences are very large. Rates in the

South are much larger than in other regions, and those in the Northeast are the lowest. This conforms to the often cited "southern culture of violence" hypothesis.

Of course, regions of our nation differ markedly in a variety of ways. One of the most important is racial-ethnic composition, with the southern states having a much larger proportion of African Americans; and other regions having higher proportions of other racial-ethnic groups, such as Hispanics and American Indians. As you may know, there are strong racial-ethnic differences in the incidence of different types of lethal violence, with African Americans being much more likely than those in other groups to be involved in homicide. These differences extend to a more aggregated level of states. States with a higher proportion of African Americans are significantly more likely to have higher homicide rates. (table 7 – regression results)

With the magic of statistics we can see what would happen if the states all had the same racial-ethnic composition. I ran some regressions, which included the proportion of Hispanics, African Americans, Asians, and American Indians within each state, as well as the regions, as predictors, and calculated the average suicide rate that we would find if each state had the average proportion of each racial-ethnic group found throughout the nation. For those of you in statistics right now, this is essentially an analysis of covariance, conducted using regression analysis. [Also maybe put in footnote that the racial-ethnic values were 1996 values, and I have assumed that the relative representation across the states has not varied that much over time.]

When we look at these adjusted figures the regional differences look quite different. [slide 11] As you can see, if all the states were to have the same racial-ethnic composition, the south would actually have the lowest homicide rates; the mountain and pacific states would have the highest. In other words, if the mountain and Pacific region states were to have the same racial-ethnic composition as the rest of the nation, they would actually have the highest homicide death rates.

Of course, variables other than race-ethnicity are related to lethal violence. Some common factors that are raised in the popular as well as scholarly literature include urbanization, reliance on automobiles, climate, and relative wealth and disadvantage. In fact, these variables are related to regional differences in lethal violence. (I have the results of my

regression analyses here for people to see if they would like after the talk but will just give the highlights right now.) Once I adjust average homicide rates for these additional variables, yet another picture appears – one in which the situation appears most serious for the intermountain states. [slide 12] These results indicate that, if states in the intermountain region, were similar to all the other states in the country in terms of racial-ethnic composition and a variety of geographic, social and economic variables, they would actually have the highest homicide rates of all the regions. Another way to think about this is that the intermountain states have low teen homicide rates only because of factors such as their racial-ethnic composition, economic characteristics, and degree of urbanization. [need to check more carefully with means and regression results to see what protects the IM states]

What about suicide rates? Historically the intermountain states have had higher suicide rates than other regions of the country. Does that appear with rates for teens? Do these differences hold up with the kinds of statistical manipulations I did with homicide rates? [slide 13] If we look at simply the gross, or actual rates, it is clear that teen suicide rates are, on average, much higher in the mountain states than in the other regions. These differences become only slightly smaller when we equalize the regions for racial-ethnic composition, in large part because groups that are more prone to suicide (especially American Indians) more often live in the intermountain region. [slide 14] Finally, when I adjust for a full range of geographic, social, and economic characteristics, the regions are more similar, but again the mountain states stand out as those with the highest rates. [slide 15]

I used a variety of means to check for differences among the regions in the rate of change of lethal violence over time. I won't go into all of the details here, but will simply say that all of the analyses I did indicated that changes over time have been quite similar from one region to another. In other words, throughout the United States, in all regions of the country, more recent birth cohorts appear to be more at risk of lethal violence than earlier cohorts.

What can we conclude then about regional differences in youthful lethal violence? [slide 16] First, there are strong, statistically significant differences in magnitude of lethal violent death across regions of our country. Second, teens in the Northeast are least at risk of death from either suicide or homicide; teens in the South are most at risk for Homicide deaths; and

teens in the Intermountain region are most at risk of suicide. Third, once we control for a

variety of risk factors, teens in the mountain states are most at risk of both homicide and suicide

deaths. Finally, throughout all regions, there have been similar changes in the age distribution

of lethal violence and in all regions more recent birth cohorts are more at risk of lethal violence.

The relatively high incidence of homicide in the intermountain states shown in these

graphs was, of course, produced through statistical adjustments. Still, it indicates, I believe, an

underlying presence of a strong risk for teens of deaths from homicides in this region – a risk

that is relatively higher than would be expected given their demographic, social, and economic

characteristics. The results regarding suicide are perhaps even more troubling, for they indicate

high risk that is apparent in both the unadjusted and adjusted rates and persists no matter what

types of controls I used.

A Closer Look at the Intermountain Region – Is Wyoming Different?

Let's look more closely now at the Intermountain states. This is, of course, a region with

a great deal of variability. Even though we may suggest that there are common cultural aspects

across the region, states included in this category have a number of differences. For instance,

they vary greatly in racial-ethnic composition; they also vary in their degree of urbanization.

Because I'm in Wyoming – and because I suspected someone would ask me about your

home state – I compared data for Wyoming to other states in the inter-mountain region. This

slide [slide 22] shows the average homicide death rates for teens from 1968-97 in the 8

intermountain states. As you can see, they vary from a low of 2.9 in Idaho to a high of 14.4 in

Nevada. In this case, Wyoming's rates are very much at the low end, at 3.5/100,000. (In fact,

Wyoming, Idaho, and Utah are all among the lowest 10 states in the nation in terms of average

teen homicide rates. New Mexico and Nevada are in the top 10 (if Washington D.C. is excluded

– Nevada #7, NM # 10.))

In contrast, with suicide, Wyoming, along with New Mexico, has the highest teen rates.

[slide 23] Colorado and Utah have the lowest. Let me emphasize, however, that all of the

intermountain states have extraordinarily high teen suicide rates. In fact, the group of 10 states

with the highest average suicide rates includes all of the 8 intermountain states plus South

Dakota and Alaska. Notably enough, both of these also could be seen to have a "frontier" type mentality that some see as characterizing the intermountain region and they also have significantly high numbers of Native Americans and Alaska Natives. [Alaska's average teen rate is the highest (20.7), followed by New Mexico (18.1), and then Wyoming (17.9) – third highest in the nation.]

Finally, out of personal interest I also examined motor vehicle death rates. A few scholars have included motor vehicle deaths in their definition of lethal violence. We have not included these deaths in our examination for several reasons. First, changes in automotive technology and safety features, such as seat belts and air bags, have made auto travel much safer. In addition, many motor vehicle deaths are the result of actions of others, rather than those of ourselves. On the other hand, motor vehicle deaths – perhaps especially those of young people – often stem from reckless, dangerous behavior. The type of behavior that is often implicated in the altercations that lead to homicide.   As you might have feared, Wyoming tops the list of intermountain states – and, in fact, all states – in terms of teen deaths from car accidents, using the averages from 1968-97. [slide 24] The rates are far higher than Montana (the famous state with no speed limit). The 6 states with the highest average teen motor vehicle deaths are – in order – Wyoming, Montana, New Mexico, Idaho, South Dakota, and Nevada. [Note, again, the inclusion of South Dakota – also that New Mexico and Nevada have a high rate of all 3 types of lethal violence – problems are very severe.]

Of course, we probably should adjust these rates for other explanatory variables. Because the intermountain states are somewhat homogeneous, the variables I used for adjusting were somewhat different, and I have the details for those who are interested. Basically, I adjusted for the representation of Native Americans, income, social disadvantage, and a composite measure of urbanization. This slide [slide 25] compares death rates in Wyoming with those in other intermountain states both unadjusted and adjusted for these risk factors. As you can see, Wyoming has a lower risk of homicide than the other Intermountain states, but this risk increases when we adjust for other factors and is not significantly different. In contrast, with suicide rates and rates of motor vehicle deaths, Wyoming has a significantly higher risk in both the unadjusted and adjusted figures.

Finally, what about changes over time in Wyoming and the other intermountain states? To examine differences in Wyoming and other states across time I created a moving average of death rates (using a 5 year time span). This is important, given the relatively small populations in Wyoming. We don't want random occurrences to throw off our estimates. [I did analyses of variance with year and Wyoming/not as factors. None of the interactions were significant, indicating that the changes over time were fairly similar in Wyoming and the other intermountain states.] Let's look first at changes in homicide rates (slide 26); you can see that the trends are fairly similar, with Wyoming's rates always somewhat lower than those for the other states. [F for interaction = 0.056] With suicide rates (slide 27) the situation is somewhat different. For the first part of the period we are studying (roughly the late 1960s to early1980s), the rates for Wyoming and the other states in the region were roughly similar. After that point, however, those in Wyoming became significantly higher [F for interaction of year and state (Wy and other) = 1.35, p = .13] Finally, with motor vehicle deaths [slide 28], the rates for Wyoming are always somewhat higher, and the statistics indicate the gap has been similar throughout the period studied [F for interaction = 0.76, p = .79]

Finally, it is important to look at the age distribution of lethal violence over time. Has this age distribution changed in Wyoming in the same way that it has changed in other parts of the region? Again, the answer appears to be yes. I'll show you only the graphs for Wyoming to try to keep things simpler. First, let's look at the data for homicide for 1970 and 1995 (the first and last years for which we have valid moving averages) [slide 29]. As you can see, in 1970 (actual 1968-72) the modal ages for homicide were 35-64 and again in the 70s. In the 1990s (1993-97) this had changed a great deal, with the modal age in the teens and 20s. With suicide [slide 30] we see a pattern that is very similar to that for the nation as a whole, with suicide rates rising fairly gradually through the age groups in 1970, but by the mid 1990s a steep rise through the teens and early 20s and then a decline in older age groups until the very oldest.

To briefly summarize, [slide 31] these comparisons give both good news and bad news about the relative status of Wyoming in terms of lethal violence. First, the good news, residents of Wyoming, including teens, have a smaller risk of dying from homicide than others in the intermountain west and changes in the age distribution of lethal violence have generally been

11

no different than those in other parts of the region. However, once we adjust for various demographic and social risk factors, the risk of homicide deaths for teens in Wyoming is not statistically significantly different from those in other states in the region. In addition, teens in Wyoming have a significantly higher rate of death from suicide and motor vehicle accidents than do others in the region, even after controlling for various risk factors. And the differences in suicide rates have increased somewhat in recent years. In short, as in the rest of the nation, more recent birth cohorts in Wyoming appear to be more at risk of lethal violence than earlier cohorts. This is especially true for suicide deaths.

III. Explaining Cohort Variations in Lethal Violence

How can we explain these cohort variations? Given the similarity of patterns across regions of the country I will hypothesize that the explanations that have been supported with our analyses of national data will also account for the changes in sub-sections of the country.

In explaining cohort variations rofessor O'Brien and I have relied on thought, particularly the Durkheimian influence on control theory within criminology and the classic writings of Durkheim himself on suicide. [slide 32] Both theoretical traditions point to the importance of social integration and regulation in stemming lethal violence. Societies, groups, and individuals that experience lower levels of social regulation and/or social integration – such as less effective norms, fewer strong social relations with others – are more prone to violence toward others and toward themselves.

We have built on this tradition by looking at variations among birth cohorts in social integration and regulation, what we have called cohort-related social capital, and have hypothesized that this cohort-related social capital is an important influence on cohort differences in lethal violence. That is, the reason that some birth cohorts are more at risk of suicide or homicide is that they vary in the amount of resources, support, and social integration that they have received throughout their lives.

[slide 33] In our analyses we have used two indicators of cohort related social capital, both demographic in nature and associated with the earliest years of life: the size of birth cohorts relative to others and childhood family structure. We suggest that family structure and

relative cohort size influence the social integration and regulation of birth cohorts in at least three different ways: financial strains that results from more children within a cohort or from fewer adults within a household; less attention and supervision for children, with adult resources spread more thinly among children; and a stronger influence of peers relative to adults. While, in part, cohort effects reflect the aggregation of individual effects, all members of a birth cohort are affected by these characteristics, no matter what the size or composition of their own family.

[slide 34] Our analyses have used "age-period-cohort characteristic" (APCC) models. These models are multivariate, include dummy variables for age and period, and then measures of cohort-related social capital. Because we include dummy variables for age and period we have really strong controls for these variables and thus a conservative test of the presence of cohort effects.

So far we have looked at national data for homicide offending, homicide deaths, and suicide deaths. With the death data we have been able to examine rates separately for race-sex groups, such as white males, nonwhite males, etc. We have also looked at international data on suicide deaths. With analyses from the United States we have looked at birth cohorts born as early as 1915. With international data we have examined cohorts born as early as 1875. We have used a variety of statistical techniques in our various articles, and no matter what type of lethal violence, demographic subgroup, or analysis technique we have used we have obtained the same results. All of these results have been very strong and support our hypotheses. Birth cohorts that are relatively large or that have higher proportions of nonmarital births are relatively more at risk of lethal violence than are other birth cohorts. This heightened risk is independent of age and period and appears to last throughout the life cycle. While the impact of these variables may be most obvious with the extreme variations in lethal violence rates seen in recent years, our examination of earlier periods indicates that these measures of cohort related social capital also account for earlier, less dramatic variations. Cohorts that experience less social integration and regulation are more prone to lethal violence throughout their lives.

[slide 35] It is important to emphasize that our analysis is structural in nature. The effects do not reflect the love that individual parents have for their children or their hopes or

13

dreams for their offspring. Instead, they reflect structural conditions that result in varying levels of financial strain, adult supervision and regulation, and influence of peers.

To help think about what these results mean, let's look at data regarding the social capital of various birth cohorts. [slides 36 and 37 – numbers in 36 and graph in 37] This figure illustrates the variations in cohort related social capital across the 14 cohorts that I talked about earlier. Looking first at relative cohort size, you can see that there were two general "baby bust" cohorts in the 20th century: the depression era babies, born in the 1930s and the post-baby boom cohorts born after 1965. We would expect that, if everything else were equal, members of these smaller cohorts would tend to have relatively more attention from adults – more social integration and regulation – and would thus be less prone to lethal violence. The baby boom cohort would be more likely to experience problems because of their larger size. In fact, analyses that were conducted through the early 70s supported this notion and found that indeed the baby boom cohorts were somewhat more prone to lethal violence and that this could be attributed to their larger size. Some authors predicted that youth suicides would decline dramatically in the 1990s because we would then have youth from much smaller cohorts.

These authors, of course, failed to recognize that cohort related social capital can have a multitude of sources. [In fact, they didn't even think about the idea of cohort related social capital in a more general sense of social support, regulation, and integration.] Our analysis suggests that relative cohort size is only part of the story. Another crucial element appears to be family structure, which we have measured via the rate of non-marital births. While the baby boom cohort was at risk from their large size, they were actually somewhat protected by their lower nonmarital birth rates. In addition, while the depression era babies were somewhat privileged by their lower relative size, they had somewhat higher nonmarital birth rates (higher even than the first two cohorts in the baby boom), which counterbalanced this positive effect. The situation for the baby bust generations (Gen X and Gen Y) is similar in some ways to the depression era babies, for they are protected by their relative small cohort size. At the same time, however, they have experienced dramatically changed family structures with very high rates of non-marital births. This has placed them at much greater risk than the depression era

babies and underlies the extremely high rates of lethal violence among these more recent cohorts.

What about future cohorts? [slide 38] Birth cohorts born after 1985 have been about the same size as those in Gen X and Gen Y. Yet, they have experienced even higher rates of nonmarital births, and this percentage appears to be increasing. In 2000 one-third of all births were to unmarried mothers – slightly over one-fourth of all births to white mothers, but over two thirds of all births to African Americans, 58% of all births to American Indians, and half of all births to Hispanics. The results of our analyses suggest that children in these birth cohorts will be even more at risk of lethal violence than those in the current younger generations if present trends continue.

IV. Implications

We have discussed theoretical, methodological, and policy implications of our work in a number of articles. Let me focus today on policy implications. I do this not just to conserve time, but also because I realize that a number of you may not spend the rest of your lives thinking about the ins and outs of Durkheimian thought or the best way to conduct a multivariate statistical analysis. A large number of you will, however, be involved in thinking about public policy. This is true whether you stay within sociology or pursue other areas. I believe that our work on lethal violence has strong policy implications, and that the work points toward policy directions that differ from those currently used to address lethal violence.

Current Policy Directions

People who work in the policy arena often tell a story of someone who comes upon a river and sees people floating down the stream, clearly in need of rescue. Others are standing by the banks frantically grabbing people as they go by. The newcomer is clearly alarmed by what he sees and joins in the effort to help pull people out. But the flow never seems to get any smaller – more and more people keep coming downstream and the rescuers are working as hard as they can. Finally, the newcomer turns and starts walking up the river. "Where are you

going?" ask those who are working by the riverbank, and he replies, "Why, I'm going to see why these folks are getting thrown into the river in the first place."

I would contend that policies and programs currently directed toward lethal violence are, primarily, downstream efforts. For instance, the major policies oriented toward suicide prevention involve programs to increase awareness of suicide, train gate-keepers in risk assessment or the use of crisis response teams, and, for individuals deemed at greatest risk of self-destruction, medication and psychotherapy. These suicide prevention efforts are "downstream." They are primarily directed at developing nets that are wide enough and strong enough to identify and help people when they are in the throes of a crisis.

Policies and programs directed toward the prevention of homicide and other types of violence directed towards others also tend to be "downstream" in nature. The majority involve the criminal justice system, which is used to punish those who commit violent offenses, as well as those who are assumed to be on the path to such actions. In addition, the threat of incarceration and punishment is often purported to serve as a deterrent to those who contemplate violent actions.

It is, of course, understandable that downstream approaches are common. If a loved one were suicidal we would immediately try to find help from the mental health system; if placed in danger of violence from others we would call on the criminal justice system. When the prospect of lethal violence is immediate, the only logical response is to rely on such approaches. Yet, relying solely on the mental health or criminal justice system – while understandable, and often necessary and important – fails to address what may be the ultimate precursors of lethal violence. In other words, these programs often do not address the structural causes of lethal violence, but only the symptoms. In addition, they fail to acknowledge the common sources of violence inflicted upon the self and that inflicted upon others. To use a medical analogy, they may be using one medicine to treat the fever and another to treat the aches, but are not using medication that might combat the underlying infection. To do so, requires more of an upstream approach.

Upstream Approaches to Lethal Violence

What might such upstream policies look like? My answer is informed by work that Professor O'Brien and I have conducted examining cohort variations in suicide rates among a variety of western nations. This time our analysis included contextual, or country-level, variables. To very briefly summarize our findings, we replicated the results we obtained within the United States, finding that birth cohorts that had less social capital had higher rates of suicide. In addition, however, we found that this relationship was much smaller in societies that provided alternative means of social capital, primarily through programs that provided additional support to families and children.

These results highlight ways to supplement, and perhaps replace, diminished levels of cohort related social capital. Recall our hypothesized avenues by which diminished cohort-related social capital affects young people: 1) diminished financial resources, 2) less adult supervision and regulation, and 3) increased influence of peers. Programs within other countries address each of these issues. Monetary child allowances and guaranteed medical care increase the financial resources available to families. Quality day-care and after-school programs can increase adult supervision and counter the influence of peers. Of course, policy innovations that would be acceptable within the United States would need to be adapted to our own cultural and economic values, such as individualism, self-reliance and the importance of market forces. I believe, however, that such policies could be developed and adopted. For instance, longitudinal studies within the United States have demonstrated the power of employment and strong family ties, areas valued in our society, in changing the trajectory of delinquent or criminal careers.

In addition to having policies that try to replace diminished levels of social capital, upstream policies could also try to stem the loss of social capital in the first place. In a number of ways, policies that provide replacement social capital may also serve, in the long run, to bolster cohort-related social capital related to family decisions and interactions. For instance, one of the major influences on the decision to marry, as well as martial stability, is economic well-being. Having greater access to the job market and well-paying employment may not only provide alternative sources of social capital for a generation that is currently in young

adulthood. It can also enhance the probability that members of that generation will be able to establish stable families and thus increase levels of social capital for subsequent birth cohorts.

Finally, we can have policies that try to lower the rates for all within the society. For instance, given that the majority of both homicides and suicides involve firearms, an obvious policy in this realm would be more effective gun controls.

Upstream approaches are important for at least two very basic reasons. First, they attempt to address the structural sources of the problem of lethal violence rather than simply the symptoms. Second, because they simultaneously address the sources of increased rates of both youthful suicide and homicide, they may produce universalistic and unifying social policies. Lethal violence affects all within the society, rich and poor, white and non-white, but the form that it takes downstream tends to differ for those in different economic circumstances. Whites and the middle-class more often deal with self-inflicted violence, the poor and minorities more often are involved with violence from and toward others. Yet, my research with Professor O'Brien demonstrates that the upstream sources of changes in the age-based incidence of these two types of violence are the same.

Social policies that receive the most support, both within our society and in other countries, tend to be those that are universalistic, such as Medicare and social security, rather than those that are means tested or focused on only one group, such as welfare or affirmative action programs. Upstream social policies regarding lethal violence would necessarily involve programs and approaches that were applied universally, and I suggest that these would not only be more effective but would also have more political support.

Our analysis of European data involved countries as the unit of analysis. The types of policies that I've mentioned are often thought of as involving federal input. Yet, within our country a large proportion of social policies are implemented, and often designed, at the state and even the local level. In many ways, given the broad range of cultural variation across the nation, as well as the varying levels and types of issues related to lethal violence, such state and local policies may be more effective than those developed and directed at a national level. They can involve support for youth, families and young workers. They can involve schools, neighborhoods, churches. They can involve ways to supplement and replace cohort related

social capital, they can also try to stem its loss in the first place and involve ways to lower the magnitude of lethal violence as a whole. Our analyses suggest that such programs may become even more necessary in the future as cohorts that are relatively more at risk enter their teen and young adult years.

Thank you for your attention. I would be very happy to answer questions may have.

Table 3-1

Cohorts in Our Analysis

Cohort	Year of Birth	Year Age 15-19	Year Age 40-44	Age in 2000
World War I				
1	1915-1919	1935	1960	80-84
1920s Economic Boom Times				
2	1920-1924	1940	1965	75-79
3	1925-1929	1945	1970	70-74
Depression Babies				
4	1930-1934	1950	1975	65-69
5	1935-1939	1955	1980	60-64
World War II				
6	1940-1944	1960	1985	55-59
Post World War II Baby Boom				
7	1945-1949	1965	1990	50-54
8	1950-1954	1970	1995	45-49
9	1955-1959	1975	2000	40-44
10	1960-1964	1980	2005	35-39
Baby Bust and Rapid Family Change (Gen X and Gen Y)				
11	1965-1969	1985	2010	30-34
12	1970-1974	1990	2015	25-29
13	1975-1979	1995	2020	20-24
14	1980-1984	2000	2025	15-19

Table 3-2

Measures of Cohort Related Social Capital

Cohort Year Number	Year of Birth	Age 15-19	Year Age 40-44	Relative Cohort Size	Non-Marital Births
World War I					
1	1915-1919	1935	1960	13.89	2.10
1920s Economic Boom Times					
2	1920-1924	1940	1965	13.69	2.57
3	1925-1929	1945	1970	12.39	2.93
Depression Babies					
4	1930-1934	1950	1975	10.80	3.92
5	1935-1939	1955	1980	10.87	4.08
World War II					
6	1940-1944	1960	1985	12.43	3.62
Post World War II Baby Boom					
7	1945-1949	1965	1990	14.62	3.82
8	1950-1954	1970	1995	15.27	4.06
9	1955-1959	1975	2000	15.33	4.82
10	1960-1964	1980	2005	14.03	5.99
Baby Bust and Rapid Family Change					
11	1965-1969	1985	2010	11.72	8.97
12	1970-1974	1990	2015	10.82	12.11
13	1975-1979	1995	2020	10.53	15.59
14	1980-1984	2000	2025	10.42	19.61

note - these cohort numbers are those used in death papers, not the offense paper. In the offense paper cohort 7 was born 1940-44 and cohort 1 was born 1910-14, but we don't have nmb for that cohort so I have dropped it.

Table 3-2

Measures of Cohort Related Social Capital

Cohort	Birth Year	RCS	NB Births
World War I			
1	1915-1919	13.89	2.10
1920s Economic Boom Times			
2	1920-1924	13.69	2.57
3	1925-1929	12.39	2.93
Depression Babies			
4	1930-1934	10.80	3.92
5	1935-1939	10.87	4.08
World War II			
6	1940-1944	12.43	3.62
Post World War II Baby Boom			
7	1945-1949	14.62	3.82
8	1950-1954	15.27	4.06
9	1955-1959	15.33	4.82
10	1960-1964	14.03	5.99
Baby Bust and Rapid Family Change			
11	1965-1969	11.72	8.97
12	1970-1974	10.82	12.11
13	1975-1979	10.53	15.59
14	1980-1984	10.42	19.61

Table 3-4

Expected Cohort Changes in Lethal Violence Rates

	Homicide Arrest			Homicide Death			Suicide Death		
Cohort	RCS	NMB	total	RCS	NMB	Total	RCS	NMB	Total
World War I									
1	0	0	0	0	0	0	0	0	0
1920s Economic Boom									
2	-1.1	9.1	8.1	-0.6	5.5	4.9	-1.3	6	4.7
3	-7.8	16.7	8.9	-4.7	9.9	5.2	-9	10.8	1.7
Depression Babies									
4	-15.4	40.3	24.9	-9.4	23.1	13.7	-17.7	25.1	7.4
5	-15.1	44.5	29.5	-9.2	25.3	16.1	-17.3	27.6	10.3
World War II									
6	-7.6	32.7	25.1	-4.6	18.9	14.4	-8.8	20.6	11.8
Baby Boom									
7	4	37.7	41.7	2.4	21.7	24	4.7	23.6	28.3
8	7.7	44	51.7	4.5	25	29.6	9.1	27.3	36.3
9	8.1	65.9	73.9	4.7	36.4	41.1	9.5	39.7	49.2
10	0.8	106.2	106.9	0.5	55.8	56.3	0.9	61.4	62.3
Baby Bust and Rapid Family Change									
11	-11.1	258.9	247.8	-6.7	118.8	112.1	-12.8	132.8	120
12	-15.3	543.6	528.3	-9.4	213	203.7	-17.6	242.5	225
13	-16.6	1129.4	1112.8	-10.2	365.5	355.3	-19.1	425.6	406.5
14	-17.1	2496.8	2479.7	-10.5	636.1	625.6	-19.6	761.7	742.1

Note: Values in this table give the expected changes in each lethal violence rate that is expected given a cohort's value on relative cohort size, non-marital birth, and the sum of these values with cohort 1, the World War I babies, as the comparison group. All calculations control for the effects of period and age.

Table 4

Average State Rates (per 100,000) of Homicide, Unadjusted and Adjusted Rates,15-19 year olds, 1968-97, By Region

	Northeast	Midwest	South	Mountain	Pacific
Unadjusted	6.3	7.5	16.2	7.8	8.5
Adjusted by Race/ethnicity	11.7	13.5	3.9	14.9	14.9
Adjusted by Race/ethnicity and Geography	11.8	16.0	10.4	18.0	17.0
Adjusted by R/E, Geography, and Wealth	0.6	8.9	2.2	10.0	5.0

Dependent variable was homicide rate per 100,000, unit of analysis was states, 1968-97.

Race-ethnic variables included in step 2 were % Hispanic, % African American, % Asian, and % American Indian, all measured in 1996. Geographic related variables entered in step 3 were % living in metropolitan areas in 1994; annual average temperature, and number of motor vehicle registrations per 1000 residents in 1995.

Variables entered in step 4 included the divorce rate in 1980, a scaled measure of disadvantage (based on z scores of xxxxx) and per capita income in 1990 (using 1996 dollars)

Table 5

Average State Rates (per 100,000) of Suicide, Unadjusted and Adjusted Rates,15-19 year olds, 1968-97, By Region

	Northeast	Midwest	South	Mountain	Pacific
Unadjusted	7.7	10.1	8.3	15.4	12.0
Adjusted by					
Race/ethnicity	8.2	9.7	9.4	14.0	10.8
Adjusted by					
Race/ethnicity and					
Geography	8.3	9.6	9.5	13.6	10.9
Adjusted by R/E,					
Geography, and					
Wealth	10.1	11.0	10.7	13.9	12.3

Dependent variable was suicide rate per 100,000, unit of analysis was states, 1968-97.

Race-ethnic variables included in step 2 were % Hispanic, % African American, % Asian, and % American Indian, all measured in 1996. [have assumed that relative representation across the states has stayed approximately equal] Geographic related variables entered in step 3 were % living in metropolitan areas in 1994; annual average temperature, and number of motor vehicle registrations per 1000 residents in 1995.

Variables entered in step 4 included the divorce rate in 1980, a scaled measure of disadvantage (based on z scores of child and total poverty, unmarried and teen births, and the school dropout rate (standardized alpha = .89) and per capita income in 1990 (using 1996 dollars)

Table 6

Average State Rates (per 100,000) of Motor Vehicle Deaths, Unadjusted and Adjusted Rates,15-19 year olds, 1968-97, By Region

	Northeast	Midwest	South	Mountain	Pacific
Unadjusted	31.2	40.9	41.6	53.0	36.4
Adjusted by					
Race/ethnicity	29.3	37.5	46.5	48.9	37.0
Adjusted by					
Race/ethnicity and					
Geography	31.9	35.8	37.7	44.0	37.9
Adjusted by R/E,					
Geography, and					
Wealth	39.5	41.8	43.1	46.3	41.8

Dependent variable was motor vehicle death rate per 100,000, unit of analysis was states, 1968-97.

Race-ethnic variables included in step 2 were % Hispanic, % African American, % Asian, and % American Indian, all measured in 1996. Geographic related variables entered in step 3 were % living in metropolitan areas in 1994; annual average temperature, and number of motor vehicle registrations per 1000 residents in 1995.

Variables entered in step 4 included the divorce rate in 1980, a scaled measure of disadvantage (based on z scores of xxxxx) and per capita income in 1990 (using 1996 dollars)

Table 7

Regression of Death Rates for Homicide, Suicide, and Motor Vehicles, 15-19 By State, 1968-97 on Region, Race-ethnicity, Geographic, and Disadvantage Variables

	Homicide		Suicide		Motor Accidents	
	b	t	b	t	b	t
Region						
a (Northeast)	0.09	0.01	11.4	4.91	14.1	2.23
Midwest	8.3	5.06	0.9	2.19	2.3	2.12
South	1.6	0.76	0.6	1.18	3.6	2.48
Mountain	9.4	4.15	3.8	6.86	6.8	4.49
Pacific	4.4	1.93	2.2	3.95	2.3	1.47
Race-Ethnicity						
% Hispanic	0.08	0.92	0.08	3.87	0.09	1.52
% Black	0.62	6.51	0.06	2.43	-0.18	-2.75
% Asian	-0.01	-0.14	-0.02	-1.03	-0.28	-4.75
% Am Indian	-0.02	-0.09	0.48	10.25	-0.21	-1.61
Geographic Variables						
% metro	-0.13	-3.15	-0.04	-4.4	-0.19	-6.9
Aver temp	-0.26	-2.18	-0.01	-0.49	0.32	4.01
Motor veh	-0.02	-4.61	0.0003	0.27	0.03	8.78
Wealth and Advantage						
Disadvantaged scale	1.24	4.51	-0.33	-4.96	0.14	0.74
Divorce rate 80	0.23	0.88	0.35	5.57	1.08	6.25
Per capita income	-0.002	5.99	-0.0001	-1.88	-0.0003	-1.69

Table 8

Average Death Rates, 15-19 Year Olds, 1968-97

Intermountain States

	Motor Vehicle	Suicide	Homicide
Arizona	46.6	14.6	12.4
Colorado	38.7	12.8	7.6
Idaho	54.1	13.4	2.9
Montana	60.3	16.6	5.1
Nevada	52.4	16.6	14.4
New Mexico	59.8	18.1	12.5
Utah	39.4	13.1	3.8
Wyoming	72.4	17.9	3.5
Total	53.0	15.4	7.8

Table 9

Regression of Death Rates, 15-19 Year Olds, 1968-97, Intermountain States

On Wyoming, % American Indian, Per Capita Income, Disadvantage, and Geographic Variables

	Suicide		Homicide		Motor Vehicle	
	b	t	b	t	b	t
constant	5.36	1.00	-10.53	-2.72	26.19	1.59
Wyoming	2.97	2.19	-1.026	-1.04	16.57	4.18
% American Indian	0.63	1.99	0.744	3.22	0.322	0.33
Per Capita income	0.0004	1.56	0.0008	4.79	0.001	1.52
Disadvantage	0.019	0.08	0.144	0.90	1.712	2.51
Metropolitan	-0.113	-0.66	0.656	5.28	-2.175	-4.12

Note: "Metropolitan" is a scale comprised from z-scores of % black 1996, % Asian American 1996, % Hispanic 1996, % living in metro areas 1994, and average temperature. Coefficient alpha (standardized version) = .82.

See earlier table for definition of Disadvantaged

Table 10

Average Values of Death Rates, 15-19 Year Olds, 1968-97, Wyoming and Other Intermountain States, Adjusted and Unadjusted

	Suicide	Homicide	Motor Vehicles
Unadjusted			
Other Intermoun-			
tain States	15.0	8.4	50.2
Wyoming	17.9	3.6	72.4
Adjusted			
Other Intermoun-			
tain States	15.7	7.6	48.7
Wyoming	18.7	6.6	65.3

States and Regions in Analysis

Northeast	Midwest	South	Mountain	Pacific
Maine	Ohio	Delaware	Montana	Wash.
New Hampshire	Indiana	Maryland	Idaho	Ore.
Vermont	Illinois	District of Col.	Wyoming	Calif.
Massachusetts	Michigan	Virginia	Colorado	Alaska
Rhode Island	Wisconsin	West Virginia	New Mexico	Hawaii
Connecticut	Minnesota	North Carolina	Arizona	
New York	Iowa	South Carolina	Utah	
New Jersey	Missouri	Georgia	Nevada	
Pennsylvania	North Dakota	Florida		
	South Dakota	Kentucky		
	Nebraska	Tennessee		
	Kansas	Alabama		
		Mississippi		
		Arkansas		
		Louisiana		
		Oklahoma		
		Texas		

Note: The Census Bureau and Vital Statistics divide the Northeast into the Northeast and Middle Atlantic states (separating between Conn. And NY above), the Midwest into the East North Central and West North Central (separating between Wisconsin and Minnesota in list above), the South between the South Atlantic and East South Central (dividing between Florida and Kentucky) and West South Central (between Mississippi and Arkansas). Both the Mountain and Pacific regions are included within the West, but I have chosen to keep them separate for this analysis.

Powerpoint Slides Referred to in the Text

Slide 1

Changing Age Distributions of
Lethal Violence

A Look at the Intermountain West

Slide 2

What's Coming

- Cohorts and cohort theory
- Cohort differences in lethal violence – a look at national data
- Regional differences
- Explaining changing age trends in lethal violence
- Implications
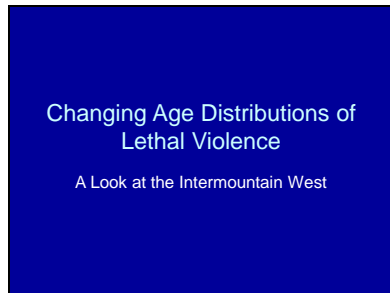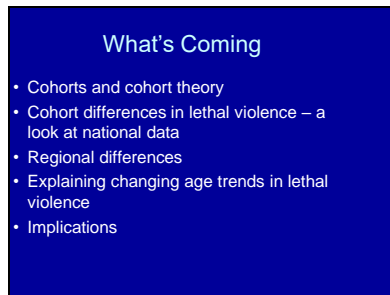
Slide 3

	Birth Year	Year Age 15-19	Year Age 40-44	Age in 2000
World War I				
1	1915-1919	1935	1960	80-84
1920s Economic Boom Times				
2	1920-1924	1940	1965	75-79
3	1925-1929	1945	1970	70-74
Depression Babies				
4	1930-1934	1950	1975	65-69
5	1935-1939	1955	1980	60-64
World War II				
6	1940-1944	1960	1985	55-59
Post World War II Baby Boom				
7	1945-1949	1965	1990	50-54
8	1950-1954	1970	1995	45-49
9	1955-1959	1975	2000	40-44
10	1960-1964	1980	2005	35-39
Baby Bust and Rapid Family Change (Gen X and Gen Y)				
11	1965-1969	1985	2010	30-34
12	1970-1974	1990	2015	25-29
13	1975-1979	1995	2020	20-24
14	1980-1984	2000	2025	15-19

Slide 4

Cohort Theory

- Cohort effects persist throughout life
- Cohort effects are distinct from those of age and period
- Cohort effects have been found in many different areas

Slide 5

Figure 1: Homicide Arrest Rates by Age, 1960 and 2000

Slide 6

Homicide Death Rates by Age 1930, 1955, 2000
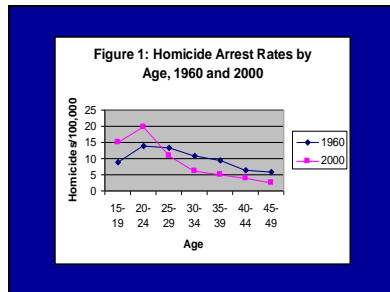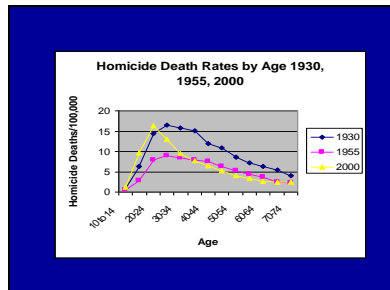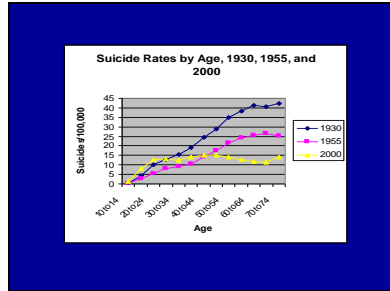
Slide 7

Slide 8

Regional Variations in Lethal Violence

- Differences in teen rates of lethal violence in regions of the U.S.?
- Wyoming and the Intermountain West
- Data from U.S. Vital Statistics, 1968-97
- Unit of Analysis is States

Slide 9

Slide 10

Average Teen Homicide Death Rates by Region, 1968-97
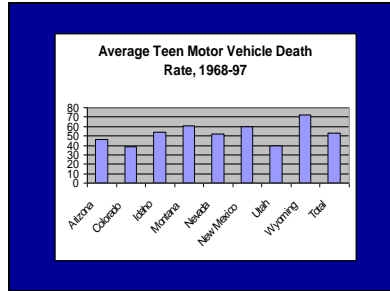
Slide 11

Teen Homicide Death Rates

Slide 12

Average Teen Homicide Rates
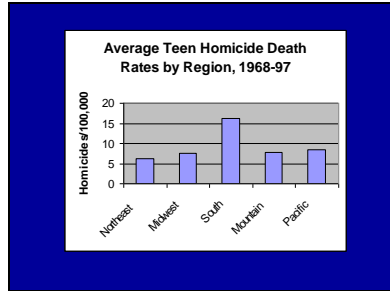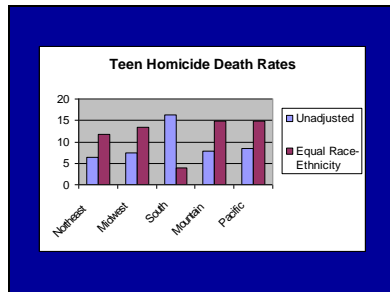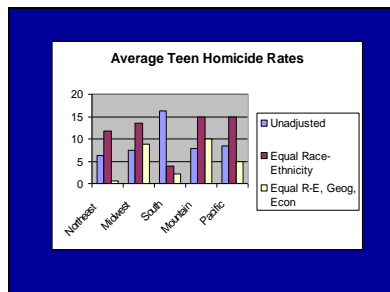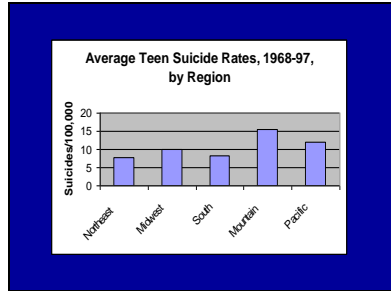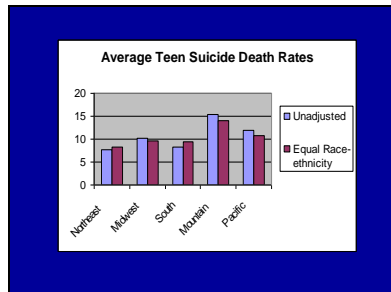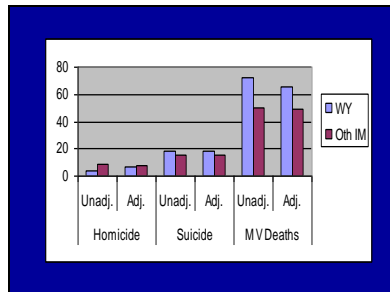
Slide 13

Slide 14

Slide 15
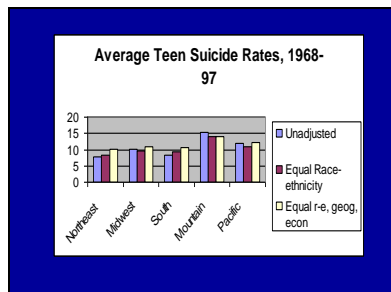
Slide 16

Regional Differences in Magnitude of Teen Lethal Violence

- Regional differences in magnitude are strong and significant
- Youth in Northeast have lowest risk, south highest homicide, intermountain highest suicide rates
- After statistical adjustments Intermountain teens have highest risk of both homicide and suicide death
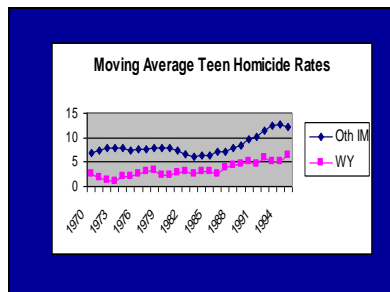- Changes in age distribution similar across regions

Slide 17

Aver. Teen Homicide Rates, 1968-97

Slide 18

Average Teen Suicide Rate, 1968-97
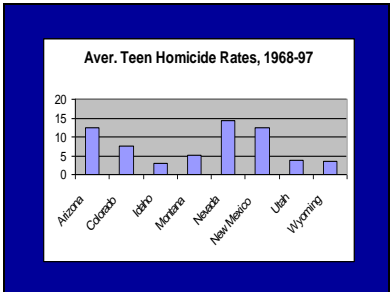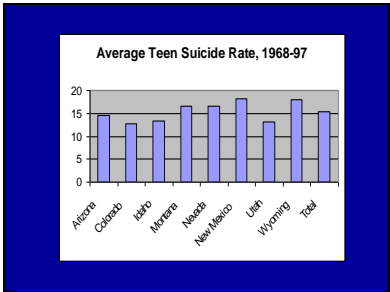
Slide 19

Slide 20

Slide 21

Slide 22

Moving Average Teen Suicide Rates

Slide 23

Moving Average Teen M.V. D. Rates

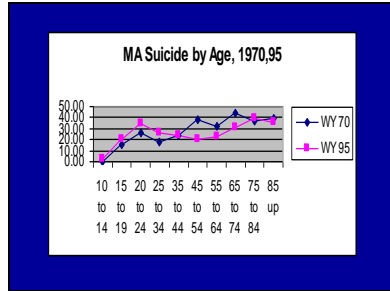Slide 24

MA Homicide by Age, 1970, 95
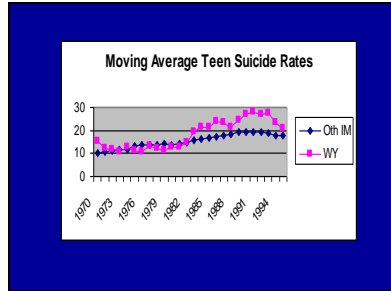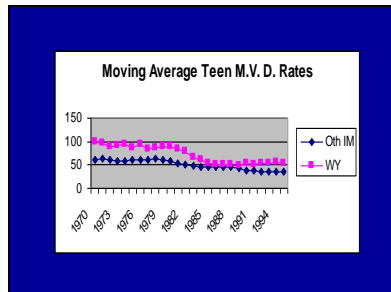
Slide 25
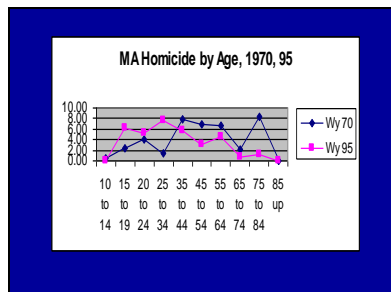
MA Suicide by Age, 1970,95

Slide 26

Lethal Violence in Wyoming – A Summary

- Smaller risk of homicide (unadjusted)
- Changes in age distribution similar to nation's changes
- Adjusted homicide risk not different from other IM states
- Suicide and MV death rates higher
- Increase in suicide in recent years may be larger

Slide 27

Explaining Changing Age Distributions of Lethal Violence

- Durkheimian perspective
- Social integration and regulation
- Cohorts vary in social integration and regulation
- Cohort-related social capital

Slide 28

Cohort Related Social Capital

- Two indicators: Relative cohort size and family structure (% of nonmarital births)
- Demographic in nature, associated with time of birth
- Influence financial resources
- Attention and supervision
- Peer influence relative to adult influence
- Affects all members of a birth cohort

Slide 29

Empirical Analyses

- Age-Period-Cohort Characteristic Model
- Strong controls for Age and Period
- Very strong results
- Occur with all types of lethal violence
- With all demographic subgroups
- In U.S. and internationally
- With cohorts born as early as 1875

Slide 30

Structural Analysis

- Results are structural in nature
- Doesn't reflect love, care of individual parents – but rather structural conditions that result in varying levels of financial strain, adult supervision and regulation, and influence of peers

Slide 31

Cohort	Birth Year	RCS	NB Births
	World War I		
1	1915-1919	13.89	2.10
	1920s Economic Boom Times		
2	1920-1924	13.69	2.57
3	1925-1929	12.39	2.93
	Depression Babies		
4	1930-1934	10.80	3.92
5	1935-1939	10.87	4.08
	World War II		
6	1940-1944	12.43	3.62
	Post World War II Baby Boom		
7	1945-1949	14.62	3.82
8	1950-1954	15.27	4.06
9	1955-1959	15.33	4.82
10	1960-1964	14.03	5.99
	Baby Bust and Rapid Family Change		
11	1965-1969	11.72	8.97
12	1970-1974	10.82	12.11
13	1975-1979	10.53	15.59
14	1980-1984	10.42	19.61

Slide 32

RCS and NMB By Cohort Bth Yr
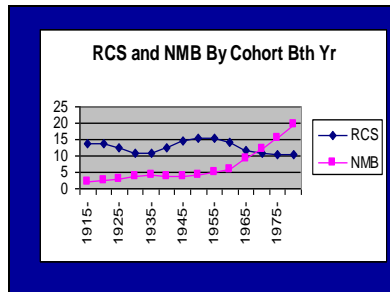
Slide 33

Future Cohorts

- Relative cohort size remains low
- Nonmarital birth rates continue to rise
- 2000 – 33% of all births were nonmarital
- 68% of African American, 58% of American Indian, 50% of Hispanics
- Results suggest these cohorts will be at even greater risk than cohorts who are currently young

Slide 34

Policy Implications

- Upstream and downstream approaches
- Current policies are downstream
- Downstream policies are necessary, but not sufficient

Slide 35

Upstream Policies

- Lessons from analyses of international data
- Replacing and supplementing social capital
- Stemming the loss of social capital
- Lowering the overall rate of lethal violence

Slide 36

Importance of Upstream Policies

- Address structural sources
- Universalistic
- Can be applied at local and state level

Slide 37

Thank You and Questions?