Analysis of BATF Youth Crime Gun Interdiction Initiative (YCGII) Reports

for 1998

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The violent criminal use of firearms is a severe problem in the United States and legal efforts should be made to catch and punish people selling guns to criminals. Like prohibition in the 1920's, it is unlikely such efforts can be more than marginally successful without impacting the liberty of the American people. Even for marginally successful results, these efforts must have the support of the American people to succeed. To obtain that support requires honest and complete accounting for police actions including open reporting of benefits for effort spent. This presentation analyzes specific reports by the Bureau of Alcohol, Tobacco, and Firearms (ATF) to gain some insight into the benefit to public safety resulting from their work.

This presentation presents a review of performance by the ATF on their Youth Crime Gun Interdiction Initiative (YCGII) Program. **The primary focus of the YCGII program is crime guns used by individuals under age 25.** The YCGII program is a new ATF effort directed at reducing availability of guns to the "youth and juvenile" criminals. The program is primarily focused on how these criminals obtain firearms and in targeting suppliers of firearms to them. In 1997 the YCGII covered 17 cities for 10 months of the year and in 1998 it covered 27 cities for the entire year.

This review shows that the ATF reports misrepresent firearm crime and trafficking problems and the law enforcement benefits from ATF efforts. This review in no way should be taken as a justification to violate the laws of the United States nor should it be taken as anything other than a call for the ATF to do better and to report honestly what they do.

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The Three ATF Reports

1 ***ATF Crime Gun Trace Analysis Reports: The Illegal Youth Firearms Markets in 27 Communities***, Department of the Treasury and the Bureau of Alcohol, Tobacco and Firearms (ATF), Feb. 1999

2 ***Performance Report For the Senate and House Committees on Appropriations Pursuant to Conference Report 105-825***, Department of the Treasury and the Bureau of Alcohol, Tobacco and Firearms (ATF), Oct. 1998

3 ***The Youth Crime Gun Interdiction Initiative (YCGII) 27 Communities -- Highlights***, Department of the Treasury and the Bureau of Alcohol, Tobacco and Firearms (ATF), Feb. 1999

In addition to these three reports, a press release was examined from the ATF dated February 21, 1999 and a 4th report was used for background:

4 ***ATF Crime Gun Trace Analysis Reports: The Illegal Youth Firearms Markets in 17 Communities***, Department of the Treasury and the Bureau of Alcohol, Tobacco and Firearms (ATF), July 1997

These reports and the press release were obtained from the ATF web site:
www.atf.treas.gov/core/firearms/ycgii/ycgii.htm

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This presentation examines the first three reports and ATF press release listed in the slide. In addition to these reports, information was obtained from testimony by ATF to Congress concerning the levels and staffing of the agency. The 1997 report [4] was used only for background including the definition:

> A **crime gun** is defined, for purpose of firearms tracing, as any firearm that is illegally possessed, used in a crime, or suspected by enforcement officials of being used in a crime.

Notice how weak the definition of crime gun is. **That is, suspicion of illegal activity rather than actual crime, qualifies a gun to appear in the ATF lists.** So a gun used lawfully in self-defense may be submitted for tracing to the ATF though no charges are filed by the states attorney. The ATF makes no report of such cases.

A major portion of the hours spent analyzing these reports was devoted to transcribe data from the “Trace Analysis Report” for all 27 communities participating in the Youth Crime Gun Interdiction Initiative (YCGII) Program. This data was transcribed to an Excel workbook for analysis. That workbook is available from the author upon request. Every effort was made to transcribe data correctly, but this was a manual process. Errors are possible. The author would appreciate being informed of any errors detected.

The first report is a large document of more than 400 pages. Most of these pages are devoted to community reports, each having the same format generated automatically from a data base. The community reports were intended to stand alone, so that there is much repetition in boiler plate text to be found in them.

Conclusions

The ATF generated reports do not present information useful in describing the ATF's contribution to fighting violent crime in the United States.

In the ATF's OWN words:

"*While the 27 participating jurisdictions provide a wide spectrum of American life, they do not in any way represent a national sample of law enforcement agencies or crime guns recovered by law enforcement agencies. ... For these and other reasons, the available data from the Youth Crime Gun Interdiction Initiative does not constitute a fully developed statistical series from which reliable comparisons can be made from one reporting period to the another."* (pp A-1 and A-2 of **Trace Request Report**)

In this statement of remarkable candor, the ATF is judging the quality of its data as relatively useless.

The quality of ATF conclusions is likewise poor as will be shown herein.

The ATF uses unsound methodology, does not account for demographic factors that it should, and represents gun crimes with data that is 86% non-violent or non-existent crimes.

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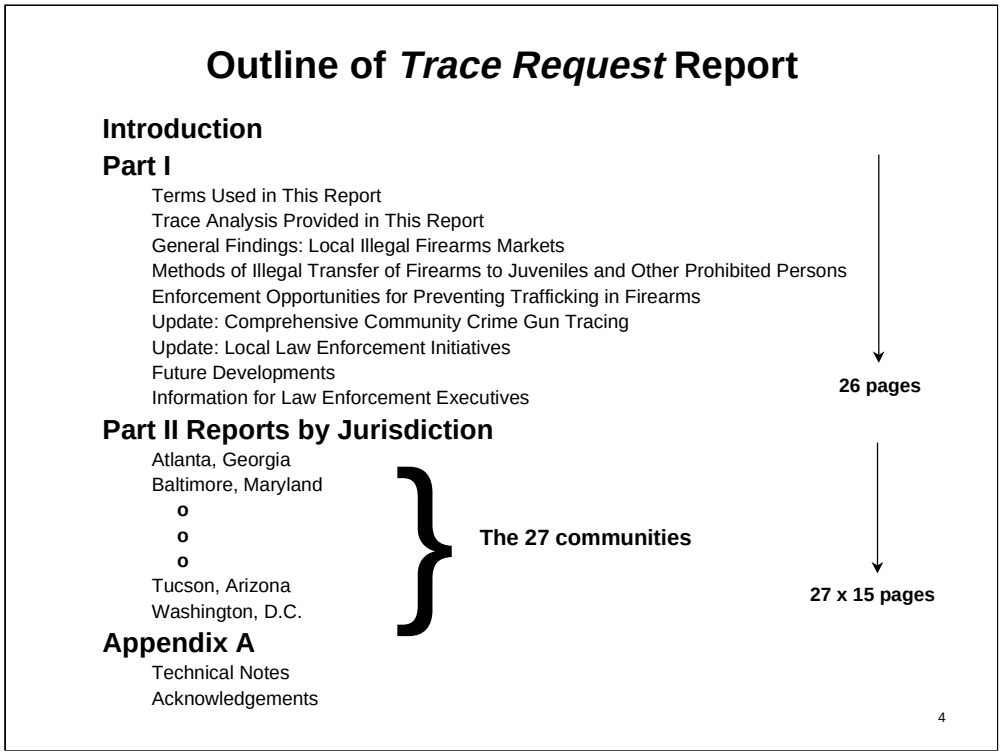
The ATF reports are political instruments written to argue for conclusions that are politically desirable to the government. To support those arguments, the ATF authors use unsound statistical methods as we shall show herein. In some cases, the ATF methods lead to conclusions which are absurd on their face. In other cases, some knowledge of statistics and biasing of statistics is needed to understand the errors of ATF methods.

This presentation addresses a number of problems with ATF methods, but the most significant critique is given by the ATF itself in their report. This slide shows, in the ATF's own words, that their data is not useful. Since the data cannot be used as a national sample and cannot be compared year to year, of what use is it? Why did the ATF prepare such a useless report?

Nor do these reports serve to determine ATF performance. In fact, many questions about ATF performance can be raised, but not answered from the data of these reports. **Congress should demand better from the ATF.**



These slides show the outline of the Trace Request Report. This 400+ page report has most of its material in 27 community reports in Part II (each community report has 16 pages of tabulated data).

Part I contains a summary of ATF definitions, material developed and conclusions. This part appears to have a political rather than analytical orientation and contains politically motivated conclusions. So, for example, the Part I summary presents an age histogram of the firearm possessors identified on the trace requests. That histogram is then used to argue that young adults of age under 21 should be denied handguns because that histogram has a significant peak at age 19. The argument made by the ATF is that young adults are unusually violent. However, as we shall show, this data is not valid and is contrary to data from adjudicated cases. The histogram in question will be presented in a slide near the end of this presentation.

Part II consists of 27 individual reports from each of the 27 cities participating in the YCGII Program. These reports all follow a similar format which will be discussed more on the next slide.

Outline of *Trace Request* Report (continued)

For Each Community the Report Contains

Table A: Request for Crime Gun Traces
Table B: Crime Gun Trace Request by Age of Possessor
Table C: Crime Gun Trace Request by Type of Firearm
Table D: Most Frequent Crime Gun Trace Requests: Type, Manufacturer, and Caliber by Age of Possessor
Table E: Crime Types Most Frequently Associated With Crime Gun Trace Requests
Table F1: Results of Crime Gun Traces
Table F2: Results of Crime Gun Traces -- Additional Detail
Table G: Time-To-Crime Rates for Most Frequently Traced Crime Guns by Type, Manufacturer and Caliber
Table H: Most Frequent Source States
Table I: Crime Guns with Obliterated Serial Numbers, by Type

15 pages

The 27 Community Reports comprise the bulk of the *Trace Report*.

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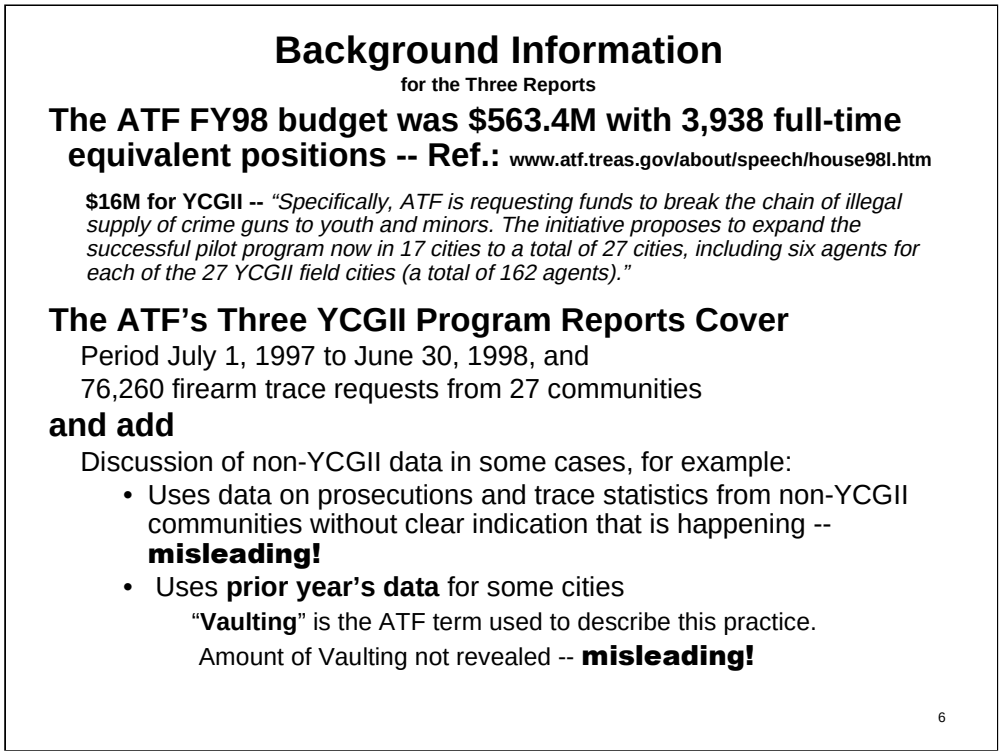
The Community reports show data in a format consisting primarily of tables of categories formed by the ATF from trace request data. The format of each community report is the same and the table titles are shown in this slide. Only the data changes from one community to another.

These tables contain the substance of data publicized by the ATF and these tables and ATF conclusions are the primary topics of this presentation.



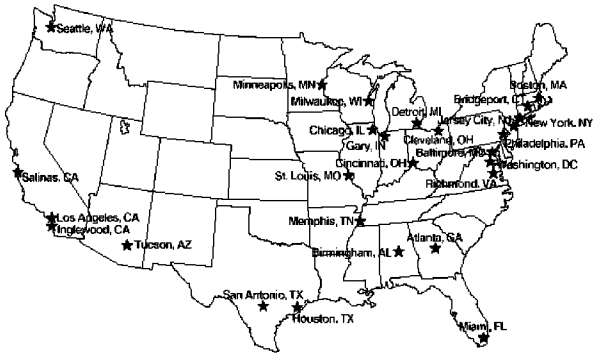
The ATF is a large organization and has responsibilities for more than gun related crime. The YCGII program is about 3% of the ATF's budget. Money from the other 97% of the budget is also spent by the ATF on efforts against gun trafficking and other federal firearm control efforts. Some of the work for that money is incorporated and reported in the three 1998 YCGII reports. These reports represent more than the work for the YCGII program.

The ATF finds it convenient to add data from outside the YCGII program to the YCGII Reports . It adds data and results from non-YCGII communities, from years prior to the YCGII program in a community, and for "offenses" other than those detected by efforts paid under the YCGII program. So, these YCGII reports do not perform the actual program reporting function and readers should not believe they are seeing an account of work bought by the $16M.

The ATF should either consolidate the similar efforts into one program and report it as such or should actually report the efforts of the YCGII program bought by YCGII money.

Background (continued)

27 Communities Participating



Chicago and New York City

- account for 32% of the Trace requests (24659 of 76260)
- have 3.7% of United States population
- have some of the strongest gun control laws in the country

Looks like the criminals in Chicago and New York City are not obeying the gun control laws

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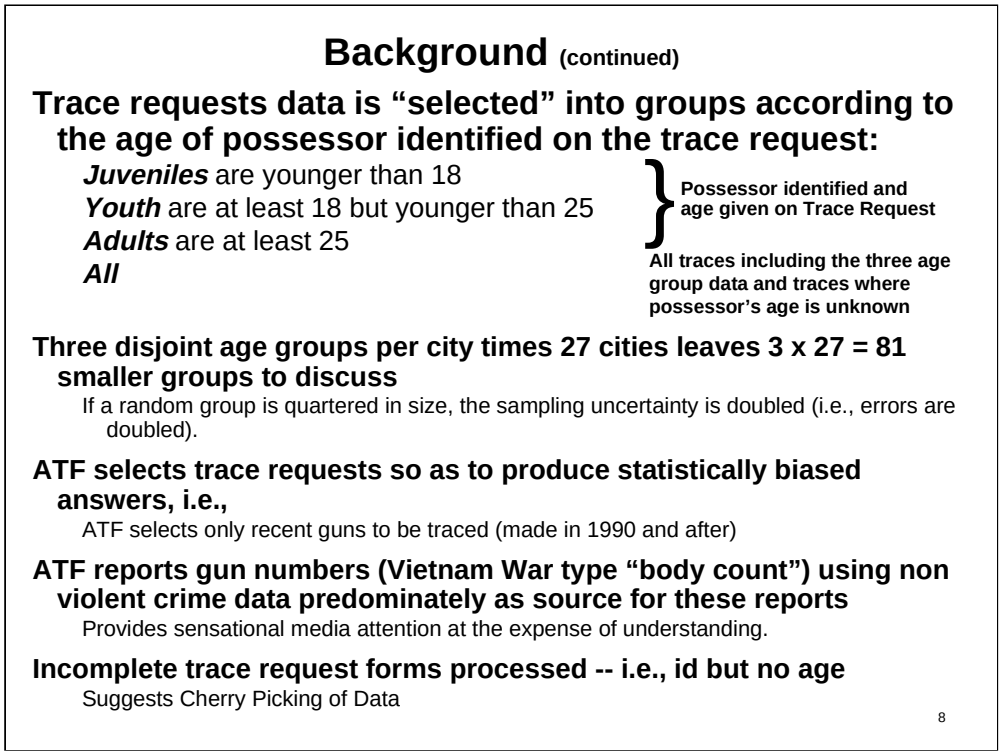
The ATF says, "*While the 27 participating jurisdictions provide a wide spectrum of American life, they do not in any way represent a national sample of law enforcement agencies or crime guns recovered by law enforcement agencies ….*"

This slide shows just how true that statement is. **Almost one-third of the Trace Requests come from just Chicago and New York City having only 3.7% of the population.**

Those two cities are not representative of the country as a whole but any national conclusions based on the YCGII Program data will be heavily weighted by those two communities because of the large fraction of trace requests provided by them. The proportion of trace requests from these two cities is 8.6 times their weighting in the nation's population. To the extent these cities are not typical, drawing conclusions about nationwide use of guns in crime from this data will mislead.

This presentation uses nationwide data to determine how well ATF performs. For that purpose, it is appropriate to group and analyze nationwide data.

Chicago and New York City have some of the strongest gun control laws in the country. That they could contribute such a large part of the YCGII data proves once again how ineffectual gun control laws are in preventing crime.

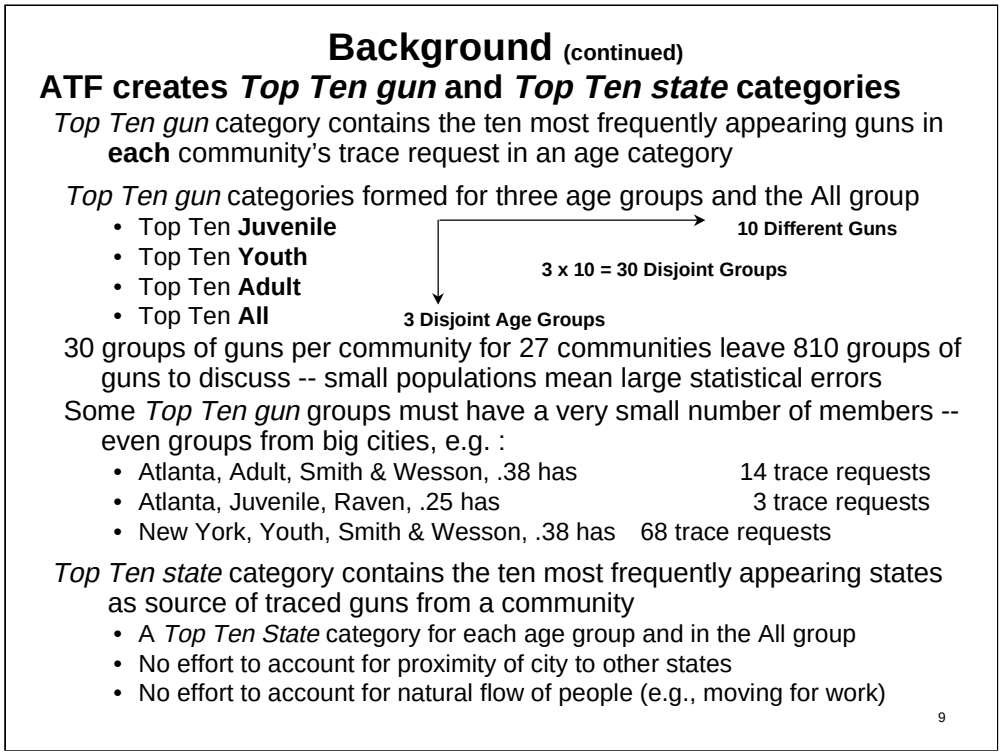


The ATF makes groupings from trace requests. They group according to community, age, and gun type. The slide shows the ATF definition of age groups. Also, the ATF has an "All" category covering all ages and unknown possessors.

For the purposes of Federal criminal activity the age of 21 is significant because handguns cannot be legally bought from Federally licensed firearm dealers (FFLs) by persons younger than 21. Yet, this report creates a boundary at 18, another at 25, but none at 21 and, thereby, does not present the data to support analysis of differences in criminal firearm acquisition for people under 21 vice those over 21.

According to the 1998 FBI UCR, page 199, "Juveniles … account for 26% of the United States population …." and "Juveniles accounted for 12% of the violent crime …." So, the ATF's focus on juvenile crime instead of violent offenders of all ages may be questioned.

It appears that the ATF is deliberately attempting to take advantage of random fluctuations, which increase with a decrease in the size of the group, to excite interest. They also are grouping and selecting data in ways which bias the results. For all of these reasons some of these groupings are statistically invalid and the results should not be believed.

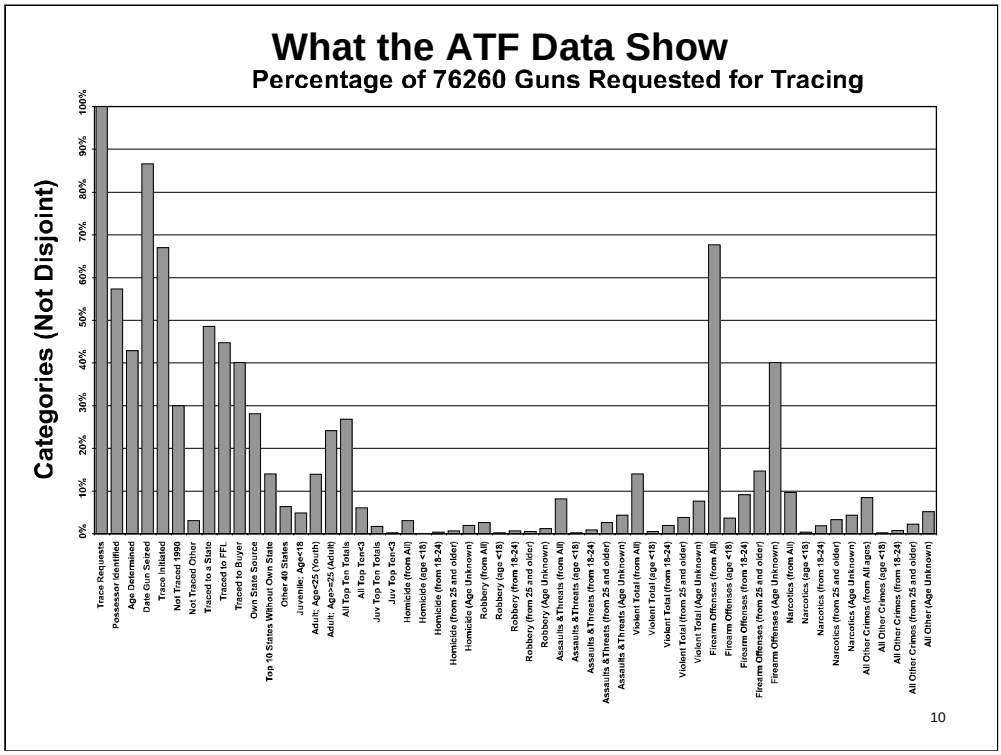


The YCGII Program is oriented around the age of the criminal (those younger than 25). It is difficult to understand why a victim should care whether the thug robbing him at gun point is under 25, but it appears that the ATF does. The ATF should justify why it has partitioned criminal population on the age 25 boundary.

The ATF creates many small groups of data (gun counts) that will have increased random fluctuations because of their small size. This slide shows examples of these small groups. In many cases the ATF makes a "federal case" of results that are nothing more than random fluctuations of small groups.

It is worth noting that the ATF reports focus on gun counts of various kinds based on Trace Request forms submitted to them and do not present any data about gun possessors being identified as a result of ATF investigations. That is, the ATF focuses on conditions in the communities and does not report what the ATF contributes to the suppression of criminal activity. **Generally, analyses which would reveal performance of the ATF are not presented.**

The ATF uses *"Top Ten" State* categories to study interstate transportation of firearms, but makes no effort to account for the natural flow of firearms stemming from relocations for employment or other reasons in our highly mobile society. So, the ATF does not distinguish guns that were part of an interstate criminal trafficking scheme from guns that came to a state because the legal owner moved. Because the ATF makes no effort to account for the relocation effect, the *"Top Ten" State* results are statistically invalid. Possibly for that reason some of the ATF's results presented are obviously incorrect. We shall discuss these incorrect *"Top Ten" State* results below.



This graphic shows consolidated results from all Trace Requests in the 27 communities participating in the YCGII Program. Percentages shown are relative to the 76,260 trace requests received by the ATF during the reporting period. Some key points from this data are (categorys below overlap):

Possessor identified on trace request form	57%
Age of possessor given on trace request form	43%
Juvenile possessor	5%
Youth (young adult) possessor	14%
Adult (older adult) possessor	24%
Date of seizure given on trace request form	87%
Not traced because sold before 1990	30%
Traced to first retail buyer	45%
Trace initiated for a Violent Crime	14%
Trace initiated for vague "firearm offenses"	68%

Approximately 68% of all crimes reported by the ATF are in a vague "other" category called "firearm offenses." This "other" category is so large it suggests that authorities have something to hide. That is, the authorities appear to be avoiding an accounting for their actions (they may be violating civil liberties) by creating a vague category to include all seizures which prove invalid. Recall the ATF's definition that a crime gun is one *suspected* of being used in a crime and we see part of the reason for this large vague category. **To protect civil liberty, the ATF should be required to more precisely characterize "gun crimes" to prevent a large (68%) vague category.**

Of the crimes tabulate, only 14% are "violent" and the other 86% are non-violent and it is possible that 68% actually aren't crimes either. This non-violent and, perhaps, non-crime focus in reporting "gun crimes" is misplaced.

Data Handling Carelessness

Reported Percentages are of the 76,260 Trace Requests forms sent to the ATF:

the possessor is identified in	57.3% (43,714) of the cases,
the age and ID of the possessor in	42.8% (32,653), and
the date the gun was seized	86.7% (66,090).

ATF data collection carelessness was demonstrated by not recording

date gun was seized	13.3% of cases (10,170), and
age of known possessors	14.5% of cases (11,061).

Some Cities were especially careless in recording ID or age

Atlanta	84.6%	Age not recorded (percent of the identified)
Chicago	93.0%	Possessors not identified (percent of trace requests)
Detroit	87.4%	Age not recorded (percent of the identified)
Washington, DC	53.4%	Possessors not identified (percent of trace requests)

These data collection lapses and flawed processing methodologies significantly reduce credibility of Time-to-Crime measures and age distributions.

At a minimum, uncertainty is increased.

It is suspected that the ATF is conducting a deliberate effort to bias results to politically desired ends.

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The date the gun was seized was not recorded in 13.3% of the cases. Given the desire to determine Time-to-Crime, it is hard to understand this lapse in record keeping. There were also lapses in recording age of known possessors.

For some cities, the numbers of these lapses were extremely high. Atlanta, Chicago, Detroit, and Washington were among the worse cases for record keeping, but they were not alone in having unusually high numbers of recording lapses.

The failures to record data properly demonstrates a lack of commitment to careful analysis. In some cases, it appears that cities were “cherry picking” the data to achieve predetermined desired statistical outcomes because so few complete data sets were recorded.

The blatant nature of this data collection carelessness raises suspicions about the quality of information to be obtained from this data and about ATF motives in using the data for these reports.

It would be easy to believe that the large number of “firearm offenses” (discussed on the previous slide) are also an indicator of sloppy data handling. However, we do not know why this vague category contains two-thirds of the data and **Congress should not tolerate that large vague category because of the potential for abuse liberty by the ATF**.

Possessor Age Category Implications

In the age related categories of Juvenile, Youth, and Adult Trace requests possessors, the ATF trace data shows

- 4.9% (3,701) as Juveniles,
- 13.9% (10,582) as Youth (i.e., Adults under age 25),
- 24.1% (18,370) as Adult (Adults 25 and older)

} **42.8% Age Known**

- 57.2% (43,607) as Unknown Age.

ATF has 57.3% of the possessors identified on the trace request, but age is given only for 42.8% leaving 14.5% of the identified having age not given -- one in seven cases!

This ignored group is so large that age related conclusions are suspect

- Simple follow-up reviews could remove the age uncertainty -- why weren't they done?
- Instead, the ATF, makes extrapolations for these age sets to give the appearance they represent a larger fraction of the whole YCGII set -- So,
- 4.9% becomes 11.4% of 76,260 **Juveniles[2]**
  13.9% becomes 32.5% **Youth**
  24.1% becomes 56.3% **Adult**

These higher percentages are being "misleadingly" reported as fact, but are only ATF speculations about proportions of each Age group.

Note 2: From Highlights, p. 2, "Crime guns recovered from juveniles comprised over 11 percent of the trace requests analyzed in the Trace Reports."
From p. 1, "… this Report analyzes over 76,000 crime gun traces from 27 cities."

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While a gun may be seized at a crime scene without the possessor being identified, it is hard to understand how a possessor could be identified but his age not recorded on the trace request. This "possessor identified, but age not" lapse happened for 14.5% of the cases (11,061 trace requests). That 14.5% of the cases could be deficient in data with no effort to fix the problem shows great carelessness by the ATF.

The ATF misleadingly reports higher percentage of the populations as having known ages. So, for example, 4.9% becomes 11.4% = (4.9/42.7)*100. At the best, this effort is an attempt to deceive the reader about the quality of their analysis.

It is possible that data was deliberately omitted to distort results -- that the ATF is attempting to shape results for political reasons by discarding data not fitting the desired outcome. History is replete with such attempts. One famous case was that of Galileo who was force to recant Copernican theory concerning the motion of the earth around the sun by the Inquisition. An apocryphal story is that as Galileo left the room after being force to recant on his knees, he muttered quietly

"É, si muove!."

We should reject the ATF's efforts to distort truth as Galileo rejected the powerful authorities of his time.

Gun Trace Performance

As a matter of ATF policy, a Trace was attempted in only 66.9% of the 76,260 cases

Trace was not attempted for 30.0% of the cases because the gun was made before 1990
48.5% were traced to the state of initial sale
44.7% were traced to the FFL selling the gun initially
40.1% were traced to the original retail purchaser of the gun

Poor performance on trace requests goes beyond ATF not trying in 33.1% of the cases

For cases attempted, ATF does not explain why it fails in tracing:

- 18.4% (14,036) to the state and
- 22.2% (16,955) to the FFL selling the gun initially.

This performance appears to be a serious quality lapse by the ATF.

The ATF does not report needed information on their efforts to detect, prosecute, and imprison traffickers, e.g.:

Time-to-prosecute: Time measured from first gun seized coming from a trafficker in a crime until the trafficker is prosecuted,
Sentence for criminal in months per gun trafficked, and
Percentage of convictions of prosecutions recommended.

So, how does the public evaluate ATF Performance against traffickers?

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ATF tracing shows a very limited record of success. The ATF could identify the state where the gun was sold initially for less than half of cases submitted. In almost 60% of the trace requests the ATF was unable to identify the initial buyer of the gun and in 55% of the trace requests could not identify the FFL selling the gun initially.

While part of the reason for this poor performance was due to ATF Policy of not tracing guns sold prior to 1/1/90, the ATF failed to trace to the FFL in almost 17,000 cases where it tried. The ATF reports do not comment on the significance of missing this large group of guns. **The ATF should have a special concern that their performance is so poor. That concern should be expressed by reporting the problems encountered and the technical and legal approaches it recommends for dealing with these problems.** For example, if serial numbers are being removed from guns in sufficient numbers, perhaps it would be useful to require the serial numbers to be inscribed on every part in the gun. These reports give no such recommendations.

While the ATF makes much of Time-to-Crime measures (time from first retail sale until a gun is used in a crime), it does not say anything about time-to-prosecute measures (time from when a gun sold by a trafficker is first used in a crime until the trafficker is charged with a crime). The second measure would say something about ATF performance and it is interesting that these reports spend so few of their pages talking about ATF performance measures. These reports give little data to permit the ATF performance to be evaluated and make no efforts to explain why reporting could not be better. **This lack of accountability is a serious quality control lapse and reporting deficiency which Congress should make sure is corrected.**

Interstate Gun Movement

The *Top Ten states* for a community are the 10 most frequent source states.

- Top Ten source states categories are created for **Juvenile**, **Youth**, **Adult**, and **All** populations of each city.

For the All Population, the Trace Request forms show that:

- 28.1% (21,447) of guns seized were sold in the community's state (DC taken to be in Maryland for this statistic).
- 20.4% (15,567) were initially sold in another state
- 30.0% (22,865) were not traced by ATF policy
- 18.4% (14,036) could not be traced to the state of first retail sale

The ATF should explain how this is possible for so many guns

No Federal prosecutions for illegal interstate trafficking of guns are reported

- Performance Report, Table 5, has 21.9% (142) of the investigation (648) involve only interstate trafficking
- So we know how many cases the ATF thinks there are, where is the report on ATF prosecution performance for those cases?

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The ATF's data shows only about 1 in every 5 guns came from a state other than where the gun was seized. **That is, only 1 in 5 can be proved to have moved from one state to another after its first retail sale. Obviously some are transported legally (i.e. legal owner moves to another state).** The ATF does not account for the legal versus illegal movement of guns.

The ATF does not report the number of prosecutions made for illegal interstate commerce of guns from the 15,567 guns they know were transported over state lines.

The reports do not contain results of Federal prosecution efforts by the ATF for illegal interstate trafficking in guns. In the Performance Report the ATF mentions that 21.9% of their 648 investigations involve interstate trafficking only, but says nothing about convictions, pleas, and sentences. **That is, they do not report the number of crimes charged, pleas entered, and convictions in court. Does that mean no prosecutions are happening? Certainly the ATF should explain its efforts and results concerning interstate illegal trafficking.**

Time-to-Crime and Trafficking

Appendix A, *Trace Request Report,* gives an important qualification to one ATF Analysis Method.

> *"Guns manufactured and sold on the retail market prior to 1990 would clearly add to the number of guns with a Time-to-Crime of greater than 3 years." (Trace Report, page A-2)*

Obviously, from the preceding ATF statement, we can say:

> Tracing guns manufactured and sold on the retail market prior to 1990 would also reduce percentages of "fast Time-to-Crime" guns and reduce the arguments that trafficking from new retail purchases was more important than theft and trafficking in stolen firearms.

The distortion of Time-to-Crime statistics by tracing only guns sold after 1/1/90 allows the ATF to claim high levels of trafficking:

> *"Newer crime guns -- those recovered by law enforcement officials within a relatively short period of time after first retail sale by a Federally* [sic] *firearms licensee (FFL) -- accounted for between 25 and 36 percent of juvenile crime guns, between 32 and 49 percent of youth crime guns, and between 27 and 40 percent of adult crime guns."* (*Highlights*, p. 1)

The statistical methods used by the ATF do not prove what is claimed as we show in the next few slides.

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Time-to-crime is defined by the ATF as the period from the first retail sale of a gun until it is used in a crime. A Time-to-Crime of less than three years, so called "**fast Time-to-Crime**," is assumed by the ATF as indicating the gun was trafficked.

Appendix A in the *Trace Report* states an important limit to the validity of the analysis presented by the ATF concerning "Time-to-Crime". That is, the elimination of guns sold prior to 1990 inflates the fraction of guns that show a fast time to crime.

The statement from the Appendix admits that the ATF policy of only tracing guns sold after 1/1/90 biases percentages on fast Time-to-Crime to make it appear that more guns are being trafficked than really are. A simple illustration showing that point can be made. If the ATF only traced guns made after 1/1/95, then almost 100% of guns traced (for the reporting year 1998) would show a Time-to-Crime of under 3 years for trace requests submitted during the period in question. By picking the cut-off date, the ATF can get any percentage it wants. The fast Time-to-Crime percentages reported by the ATF are statistically meaningless for that reason. The cut-off date chosen produces a biased result and not accounting for the bias renders the reported result meaningless.

The 1990 limit and consequential distortion of statistical results is ignored within Part I of the trace report and throughout the other two reports where program summaries are presented (it appears that ATF data analysts have slipped information about the bias into Appendix A of the *Trace Report* which is ignored by ATF authors writing the summaries).

Top Ten Gun Categories & Time-To-Crime

For each community and for each category Juvenile, Youth, Adult, and All, the ATF identifies the 10 most frequent guns seized as a *Top Ten gun* category (each community has 4 such Top Ten gun groups).

The ATF reports Time-to-Crime only for guns in these *Top Ten* gun groups.

- The **All *Top Ten*** groups of the 27 cities contain 26.8% (20,448) of the 76,260 total guns.
- In **All *Top Ten group*** 6.1% (4,630) of the trace requests show fast Time-to-Crime of less than 3 years.
- The **Juvenile *Top Ten*** group contains 1.7% (1,330) of the 76,260 total.
- In **Juvenile *Top Ten*** 0.3% (203) show fast Time-to-Crime of less than 3 years.

Comparing the Juvenile and All categories, proportionately fewer juveniles show fast Time-to-Crime for their guns.

- Comparison is 23% vice 15% (4,630 out of 20,448 vice 203 out of 1,330)
- But Juveniles can only buy firearms by trafficking -- so how can a measure of trafficking be less for juveniles than for adults some of whom might buy legally?

Fast Time-to-Crime is not a reliable measure of trafficking and to use it for analysis and reporting is misleading!

- The ATF knows and acknowledges that fast Time-to-Crime does not mean trafficking, so why do they claim trafficking is happening based on this data ?

ATF reports Time-to-Crime only for a fraction of the trace requests analyzed (only for the "Top Ten" gun groups). The fraction reported is less than one-third of the cases that could be reported. That low fraction suggests that the ATF is distorting the results by selecting data to report.

For the cases reported, it is clear that a fast Time-to-Crime does not measure trafficking for statistical purposes. For example, let's comparing Juvenile Fast Time-to-Crime percentage to All Fast Time-to-Crime percentage. The Juvenile percentage is less for a group that is more dependent on trafficking (juveniles cannot legally buy guns but adults may). Yet the measure of trafficking for Juveniles is less. The smaller percentage of fast Time-to-Crime for Juveniles shows that measure does not reflect trafficking. Now the ATF knows and has stated fast Time-to-Crime does not measure trafficking on page 8 of the *Performance Report*. So, why doesn't the ATF present true indicators of trafficking obtained from investigations?

The ATF reported data has a Time-to-Crime of less than 3 years in the ALL gun category for only 6.1% of the trace requests submitted (more may have happened, but the ATF does not report the data). Remember that 6.1% as we examine the ATF reporting of fast Time-to-Crime percentages in the next few slides.

Planned Changes to Time-to-Crime Biasing

If, in the future, the ATF begins to trace guns made prior to 1990, the resulting reduction in percentage of "fast Time-to-Crime" guns (from just this change in measurement) will permit ATF to claim progress against trafficking.

ATF has announced that it will trace guns sold since 1985 on the YCGII program beginning in FY99.

- Trace cut-off date determines biasing in fast Time-to-Crime percentages.
- That change will reduce the fast Time-to-Crime Bias

  Based on a simple statistical model (assuming constant annual sales of guns) the Biasing should decrease from 35% to 21% approximately.

  Since most of what is being measured by the ATF using their fast Time-to-Crime approach is the bias in the statistics, a decrease in bias will appear to be a reduction in trafficking.

Also, moving the cut-off date for tracing guns to an earlier date will increase the number and the proportion of traces attempted and seemingly improving that measure of performance.

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Fast Time-to-Crime would happen for some guns even if there was no trafficking at all. If a newly purchased gun is stolen and the burglar is caught with the stolen goods, a gun crime has occurred and the gun will show fast Time-to-Crime. Chance contributions of this type can be estimated with simple statistical models and resulting percentages of fast Time-to-Crime guns would be the **bias** of the statistic. The ATF's policy of tracing guns sold after 1/1/90 produces a fast Time-to-Crime bias of approximately 35%. That is, 35% of guns recovered from crimes should have a Time-to-Crime of less than 3 years. If the cut-off date is moved to 1/1/85, the bias will become 21% approximately for 1999. The bias results from the simple effect that guns will be stolen in proportion to their presence in the population and the bias represents that proportion approximately (ignoring year to year sales fluctuations).

The 35% number is calculated by the ATF itself on page A-3 of the *Trace Request Report* although the ATF does not appear to be fully aware that its calculation is of bias for the fast Time-to-Crime percentage statistic resulting from ATF's trace cut-off date. The quote is:

> "ATF **assumed** that the number of guns with longer time-to-crime was proportional to the number of months in the earlier period [more than 3 years] while the number with short time-to-crime was proportional to the number of months in the later period [less than 3 years]."

The ATF assumption has nothing to do with trafficking and everything to do with simple proportions. Since the ATF can obtain different percentages of trafficking results by selecting the cut-off date for tracing guns, they will obtain the appearance of progress by making the change to move the cut-off date earlier. That is, the year to year percentage of fast Time-to-Crime will decrease in the 1999 YCGII reports relative to the 1998 because of the change in cut-off dates from 1990 to 1985 and the resulting reduction in bias.

ATF Distorts Time-to-Crime

How ATF manipulates Time-to-Crime percentages is illustrated with two examples of Tables taken from the *Trace Report*

Example 1: Washington, D.C. Table G. All Crime Guns

Type	Manufacturer	Caliber	Number of Crime Guns		Less than 3 Years (Time-to-Crime)		
			All	**With Time-to-Crime[1]**	Number	**Percent[1]**	
Revolver	Smith & Wesson	.38	174	**25**	4	**16.0**	
Semiauto	Smith & Wesson	9mm	82	**24**	12	**50.0**	(=12/**24**)
Semiauto	Ruger	9mm	82	**54**	24	**44.4**	
Revolver	Smith & Wesson	.357	77	**15**	2	**13.3**	
Shotgun	Mossberg	12GA	76	**28**	10	**35.7**	
Semiauto	Glock	9mm	72	**28**	12	**42.9**	
Semiauto	Lorcin	.380	68	**54**	22	**40.7**	
Semiauto	Colt	.45	58	**13**	4	**30.8**	
Semiauto	Davis	.380	56	**48**	24	**50.0**	
Revolver	Ruger	.357	52	**16**	6	**37.5**	
Total			**797**		**120**	**15.1**	**(=120/797)**

15.1% of the total guns in this table show Time-to-Crime < 3 years

Smith 9mm case shows ATF manipulation of percent column.

- Triple selection: 1) *Top Ten*, 2) *Manufactured 1990 and Later and 3)* Specific gun manufacturer's model and caliber
- Selection reduces population size and increases random fluctuation
- The *"With time to Crime"* column **is** (essentially) "*Manufactured 1990 and Later" because* ATF's Policy is to only trace guns made after 1990 thereby eliminating these guns with long Time-to-Crime -- this approach changes 12 out of 82 (14.6%) into 12 out of 24 (50%)

Note 1) This font, used for some entries, was chosen to draw attention to ATF's "misleading" reporting

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This slide and the next one illustrate some ATF Time-to-Crime distortions. These distortions are typical (not exceptional) in reporting by the ATF. The distortions are similar for all firearms in the table, but we select the Smith & Wesson 9mm to discuss. Consider the Smith & Wesson 9mm row (second gun row) in the slide's table obtained from the *Trace Request Report* data on Washington, D.C. The Smith row shows how the ATF creates a high percentage of Time-to-Crime less than three years. First, the ATF discards from consideration all guns not having a Time-to-Crime measure. Since guns sold prior to 1/1/90 do not have that measure because the ATF policy is to not trace them, all guns sold prior to 1990 are excluded (and those that can't be traced). Starting with 82, that policy reduces the number of Smith 9mm guns to 24. Of those 24, 12 have Time-to-Crime less than 3 years, so the ATF shows 50% of the Smith & Wesson 9mm guns with fast Time-to-Crime.

Actually, the ATF has shown only that 14.6% (12 of 82) of the Smith & Wesson 9mm guns have Time-to-Crime less than 3 years.

Also, unless the ATF believed Smith & Wesson (or any other manufacturer) was involved in a conspiracy to sell guns to criminals, there is little reason to distinguish one gun from another in a community. If a trafficker is operating in a community, that is the significant fact, not the make and model of the guns sold (an FFL trafficking in Smith & Wesson guns could as easily sell Colts or other manufacturers). By isolating to individual models of guns, the ATF creates many small populations so that random effects will produce the "press release" results for some of those populations.

All of this attention to gun statistics crowds out discussion of trafficker statistics but the ATF should be reporting performance in catching and prosecuting traffickers.

ATF Manipulates Time-to-Crime (continued)

Example 2: Baltimore, MD Table G. All Crime Guns

	Type	Manufacturer	Caliber	Number of Crime Guns		Less than 3 Years (Time-to-Crime)		
					All With Time-to-Crime	Number	Percent	
	Revolver	Smith & Wesson	.38	151	43	8	18.6	
	Semiauto	Davis	.380	135	119	54	45.4	
	Shotgun	Mossberg	12GA	115	58	29	50.0	
	Revolver	Harrington & Rich.	.32	87	25	1	4.0	
	Semiauto	Ruger	9mm	84	73	41	56.2	
➤	Semiauto	Raven	.25	78	44	0	0.0	
	Revolver	Taurus	.38	67	51	7	13.7	
	Revolver	Rossi	.38	67	48	12	25.0	
➤	Rifle	Marlin	.22	67	21	9	42.9	
	Revolver	Smith & Wesson	.357	59	29	4	13.8	
	Total			910		165	18.1	(=165/910)

18.1% of the total guns in this table show Time-to-Crime < 3 years

Table's Time-to-Crime percent column entries are artificially high for the same reasons as the Washington, D.C. example

Additionally, this Example displays some strange results which demonstrate that the ATF methodology is not valid. For example, the data appear to show

Evidence of high trafficking (42.9% < 3 years) for the Marlin .22 Rifle ?

- Criminals like the Marlin .22 rifle so much that it is a "top ten" gun ?
- The classical Saturday Night Special Raven (not approved for sale in Maryland) shows no indication of being trafficked ?
- In Baltimore, the Mossberg shotgun is more preferred and trafficked than in Washington, D.C. where handguns are illegal ?

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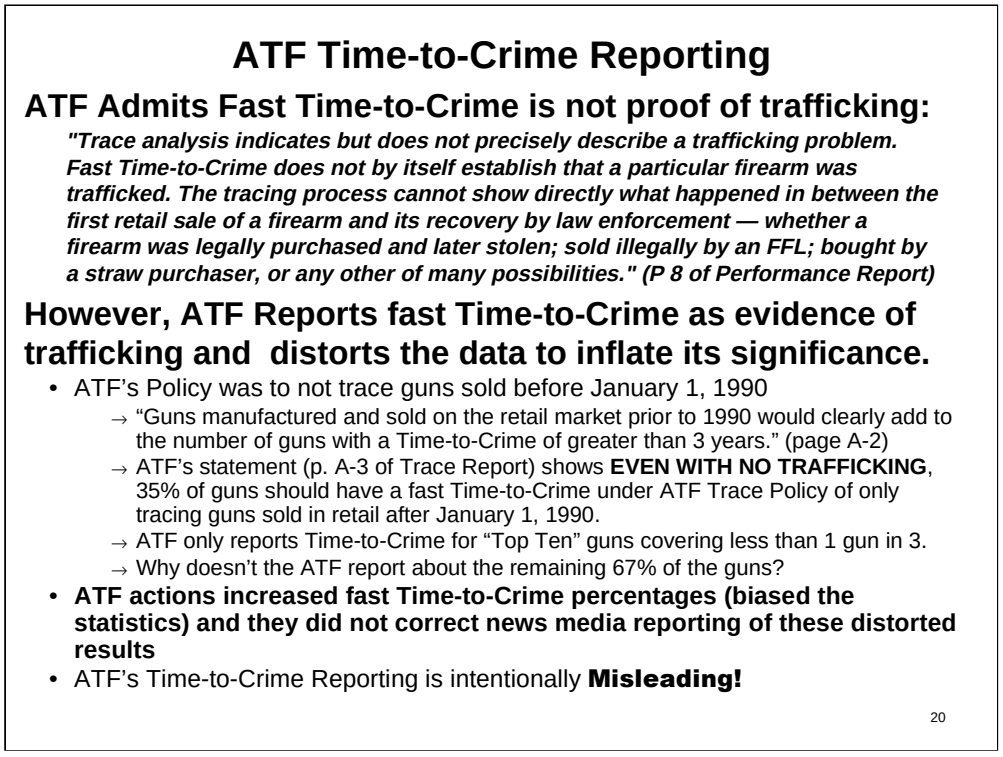
A second example of ATF manipulation of Time-to-Crime data, using a Baltimore, MD table is shown in the slide. Once again we see the elimination of guns from consideration to inflate the fast Time-to-Crime percentage.

Notice the low percentage of Raven .25 guns having fast Time-to-Crime. The Raven has not been permitted to be sold in Maryland since 1988 because it is viewed as a "Saturday night special". For this gun to be widely available, it must be illegally sold (trafficked). So, the measure of trafficking does not register as you might expect in the case of a gun that has to be trafficked to be widely available to criminals in Maryland. Notice that despite the bann on legal sales in Maryland since 1988 the large percentage of Ravens made after 1/1/90 (the 44 with time to crime out of 78).

Notice also the popularity of the Marlin .22 rifle as a crime gun and the high percentage of those guns (according to the ATF) showing fast Time-to-Crime. Most criminals prefer large caliber pistols rather than hard to conceal small caliber rifles. Whatever the ATF is attempting to do with these "Top Ten" groupings, it is clear that their data is not capturing the real problems with violent crime. These two examples demonstrate the lack of relevance of the Time-to-Crime and the "Top Ten" gun measures used by the ATF. That is, the ATF reports fast Time-to-Crime measure as being high for a gun not desirable to violent criminals and low for a gun that must be trafficked to be available in Maryland. The behavior of the Time-to-Crime measure and "Top Ten" categories defy common sense expectations.

The statistical analysis of firearm crime is being trivialized by the ATF to generate sensationalism. Their approach produces misleading results and acceptance of those results will prevent real progress against criminal violence. The United States is not being well served by the ATF's "press release" oriented and misleading analyses.



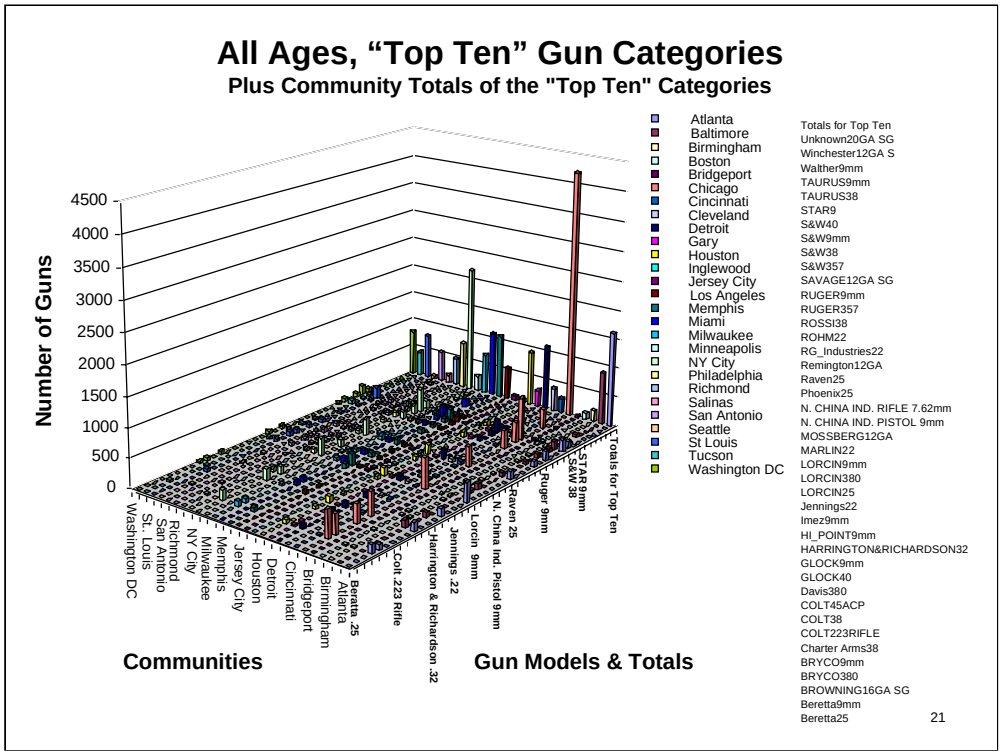
The ATF admits that Time-to-Crime being less than three years does not prove that trafficking has taken place. However, that admission does not stop them from making a "Federal Case" out of short time to crime statistics. Also, the ATF uses several techniques to make the Time-to-Crime data appear to prove the existence a trafficking problem.

1) The ATF biases the Time-to-Crime numbers by only tracing guns sold after 1/1/90. The data bias magnifies the appearance of a trafficking problem (which the ATF admits in Appendix A of the *Trace Report* so they cannot plead ignorance of what they are doing).

2) By reporting small groups of each city's data (the "Top Ten" crime guns), the ATF insures that there will be random fluctuations in the data that will produce groups of guns having a large percentage of fast Time-to-Crime just from random action.

3) Also, the ATF prevents the reader of the report from seeing the whole picture by only reporting a subset of the data (Time-to-Crime is given for just 1 gun in 4).

The ATF is aware of the statistical distortions of its approach, but does not correct erroneous reporting by the media. That is, it tolerates lies being reported.



This graph shows by city and by gun the "Top Ten" gun numbers reported by the ATF in the ALL ages category for each city. The plot is a three dimensional histogram with number of guns along the vertical axis. The city values are coded by color and city and gun type axes project out of the paper.

The city axis only names every other city, but the list of cities is in order and the missing names can be discovered from that list. The plot shows the gun names less frequently, however, the list of guns is given to the right of the plot in order with the top of the list corresponding to the rear of the plot. That top most name and the rear row contain total gun counts for the "top ten" guns. The three highest totals are Chicago, New York City, and Atlanta in decreasing order and their totals are easy to pick out of the rear row. **The Smith & Wesson .38 has a non-zero count in all but one of the cities (meaning it is in the "Top Ten"). Notice the dominance of the S&W .38 gun row compared to other individual gun rows. The similar revolver, the S&W .357 is also very popular.**

It is a shame that the ATF does not report all gun counts. The many cases of zero count are because of that lack of reporting.

The ATF "Top Ten" Guns from *Highlights Report*

The Bad Ten According to the ATF -- Does not include the Smith & Wesson .38 revolver -- the gun most frequently traced.

1. Lorcin 9mm Semiautomatic pistol

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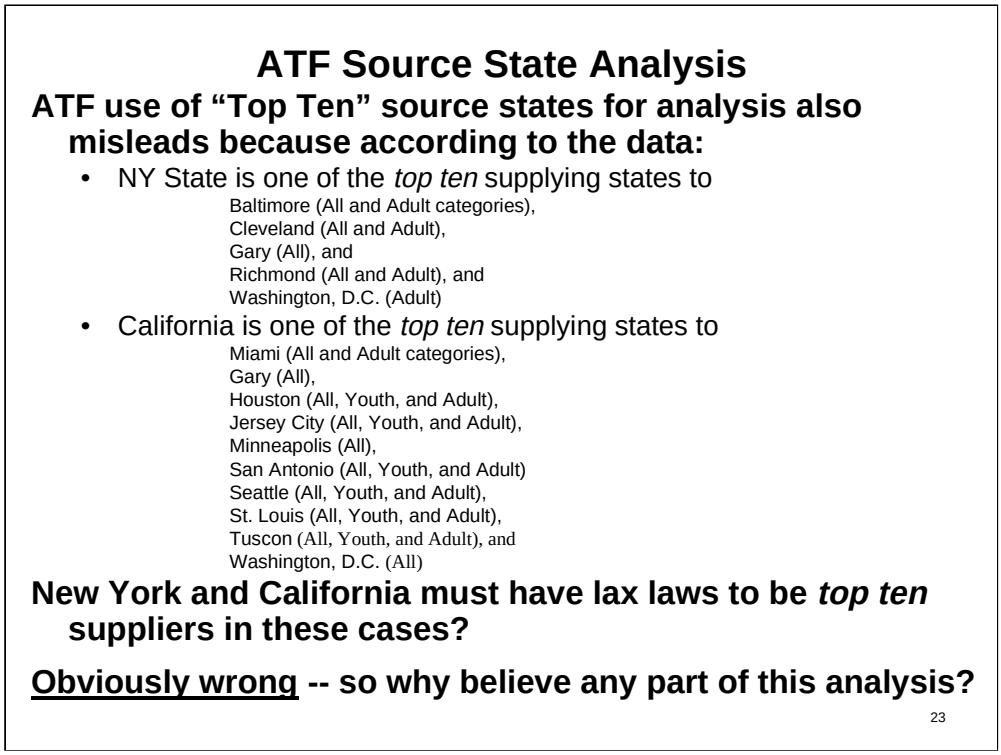
This slide's picture of self-loading pistols is taken from the ATF Highlights Report. These guns are labeled by the ATF as being the most significant because they "*have the fastest Time-to-Crime of firearms that law enforcement officials recovered frequently from juveniles and youth* (Highlights Report)."

This picture does not contain the most frequently used gun appearing in trace requests submitted to the ATF. They are taken from a selection of gun trace requests where the age is known to be under 25.

In fact, two Smith & Wesson revolvers (.38 and .357) appear more frequently in trace requests (in the All "top ten" categories) than several of the appearing guns -- specifically, the .38 revolver appears more frequently than all of the pictured firearms; the .357 revolver appears more frequently than the Bryco 9mm, the Smith & Wesson .40, the High Point 9mm, the Glock .40, the Glock 9mm, and the Star 9mm.

However, the ATF thinks that the age of the thug using a firearm is important, not the frequency of the firearm's use. So, by limiting its concern to the younger thugs, the ATF constructs a case against the pictured firearms. Once again, the ATF uses a selection of the data to construct what appears to be a politically dictated conclusion. This conclusion is completely at variance with the one supported by the full data set of 76,260 trace requests.



Using its "Top Ten" approach, the ATF analyzes interstate trafficking of guns recovered from YCGII cities. So, from the "Top Ten" data the ATF reports that New York State and California are "Top Ten" source states for the cities shown in the slide.

Since California and New York State have some very strong gun laws, it is difficult to believe that a place like Washington, D. C. is heavily trafficked by gun runners who buy their guns in those states. Something is being shown in these statistics that has little to do with trafficking. These particular ATF results are evidence that the statistical methodology is not particularly meaningful. Moreover, the ATF approach cannot be made meaningful without results of investigations which the ATF does not report.

It is interesting that the ATF should choose to determine trafficking from trace request data, rather than from its best data -- its investigations. Firearms transported to states because of the relocation of owners would be expected for communities with significant economic growth and need for workers. Investigations could determine those guns transported for that reason (if it applies to a particular gun). The ATF should attempt to account for that factor and other non-trafficking reasons for the movement of guns. Investigations would reveal whether the guns in question came to the cities by interstate trafficking or by a method such as a legal owner moving for a new job combined with a theft from that owner.

It appears the ATF is using a highly inaccurate measure to make interstate trafficking appear more serious than it is.

ATF Reports Little About Performance!

What performance the ATF does report is not outstanding.

- ATF reports two trafficking cases involving 1,359 and 1,600 guns with no explanation of how the traffickers escaped detection for long enough to handle so many guns (*Performance Report*, p. 7)

  ATF makes no recommendation for legislation to address any legal tools identified as being needed in these two cases.

- Only two (0.3%) of the 648 cases concerned an "Armed career criminal" (*Performance Report*, p. 12)

  ATF prefers non-violent crimes -- "body counts" (gun counts) are easier to obtain and no more useful than that statistic in Vietnam.

  Of the investigations begun since July 1996, "41.4 percent have been adjudicated", *Performance Report*, p. 5

- No results from any adjudications are reported.

YCGII Federal cases recommended for prosecution by ATF in 1998 (151) are fewer than one per ATF agent (162) hired for the YCGII program (6 agents in each community).

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The ATF avoids discussion of measures of their performance as a police agency -- the three YCGII reports do not give statistics for prosecutions recommended, convictions and pleas, and sentences obtained for the federal crimes involving the guns traced. Anecdotes of cases handled do give a picture of an agency that is no more successful in preventing gun trafficking than it was able to suppress alcohol trafficking during prohibition. As an example, the ATF reports two cases of Gun trafficking where the traffickers sold 1,359 and 1,600 guns (that they know about). The ATF does not give any lessons learned from these cases, but we would be interested in how these traffickers could escape detection for long enough to permit each to sell more than a thousand guns.

Congress should demand that the ATF report measures of the time it takes to detect and prosecute traffickers. An example of such a measure is Time-to-Prosecute, the time between when the first gun from a trafficker is seized in a crime to the time the trafficker is indicted for trafficking.

The ATF seems to be interested in counts from guns that may or may not have been involve in crimes using data associated with non-violent offenses (if they are offenses) to produce a large "body counts" of guns seized. The ATF appears to be more interested in "body counts" than successful prosecutions of violent career criminals (2 cases) . **Congress should demand that ATF focus on violent crimes and crimes by armed career criminals and Congress should impose measures to check that the ATF is responding.**

ATF Reports Little About Performance! continued

Nationwide, ATF reported 1,604 trafficking investigations.

- 648 of these cases involved juveniles or youth -- the subjects of the YCGII Program, but again nationwide and not just the 27 YCGII cities.
- Less than 1 in 4 (less than 159 of 648) investigations were initiated because of Traces (some of these 159 could have been initiated for other reasons according to the ATF report).
- 369 of the "participants" in the 648 investigations for firearm trafficking had prior felony convictions.

These nationwide cases covered:

- More than just work by the 162 agents hired for the YCGII program in the 27 cities
- A two year period since July 1996 (not just the 1998 Report's period of July 1, 1997 to June 30, 1998).

Why didn't the ATF report just what it did that year for the YCGII program?

25

The ATF reports 1,604 trafficking investigations. Only 40% (648) of these involve youth and juveniles and so 60% are not associated with the YCGII program. However, not all of the 648 investigations are part of the YCGII program either. Some of these are from cities that are not participating in the YCGII program.

Also, these 1,604/648 investigations happened over two years of effort and not just one. The ATF does not distinguish what they did for the YCGII program money during the 1998 reporting period. Also, from the perspective of a crime victim, it is difficult to understand why the ATF divides its reporting about gun trafficking along the lines of the age of the criminal user of the firearm. It would be surprising to find traffickers that would discriminate against criminal buyers on the basis of age, so what the ATF hopes to accomplish by its discrimination is not evident.

On the next slide is given part of a fiscal year 1998 (1 October 1997 to 30 September 1998) report for the ATF. It is displaced by three months from the defined reporting period for the *Trace Report*. It is also interesting that neither of the ATF's two periods of reporting (the fiscal year 1998 and the 7/1/97 to 6/30/98 *Trace Report* periods) correspond to the FBI's Uniform Crime Report periods. The lack of correspondence makes comparisons to the FBI crime data difficult. Do you suppose that making comparisons difficult is intentional?

What ATF Reported About Its Activities

ATF initiated 301 YCGII investigations in FY98 (one for every 250 gun traces) involving 3,347 illegally trafficked firearms (Performance Report, p. 2) and recommended:

151 YCGII cases with 276 defendants for Federal prosecution,

- 19 cases with 36 defendants for state prosecution.

These 301 cases involve

- One trafficked firearm for every 23 guns traced, approximately;
- Averaging less than 21 trafficked firearms per YCGII agent hired;
- Prosecution recommendations by the ATF for crimes involving less than 5% of traced firearms.

No reports given of conviction rates for prosecutions.

Why?

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In the *Preformance Report* the ATF reports 301 YCGII investigations started -- approximately two per agent hired in the reporting year.

50% of these investigation cases produced a recommendation for a Federal prosecution -- approximately one per agent hired.

Since the press release was dated 21 February 1999, some results of these prosecutions should be known especially for the prosecutions recommended in the first quarter of fiscal year 1998 (beginning October 1, 1997). That quarter ended more than 13 months before the February 1999 press release. But no detailed results (convictions, pleas, or acquittals) for these prosecutions or those from the previous year were given.

The ATF updated its press release on the YCGII program on April 06, 1999 but did not mention prosecution results. As this presentation is being completed, it is two years since the beginning of FY98 and the ATF has not reported results from its YCGII program recommended prosecutions.

Why?

ATF Performance Reporting Deficiencies

ATF does very little reporting of their VALUE ADDED.

- One claim for benefit is 151 federal cases recommended for prosecution (about 1 in 4 of the 648 investigations over the two years covered).
- **ATF focus is on "crimes" with firearms that are non-violent -- that seems to be the wrong priority.**
- Only 1 of every 7 guns traced by ATF was used in a violent crime -- 6 of 7 were not.
- ATF statistics and reporting are not directed toward violent use of guns and the three ATF reports mislead about violence with guns.
- **The ATF says little about the impact of firearm trace requests on prosecutions -- missing are reports**
  - Of possessors not identified on the trace form but identified through trace analysis (32,546 trace requests)
  - Of convictions obtained and criminal sentences as a result of tracing and ATF investigations.

When the ATF does report performance data, it is for

- More than the 27 YCGII cities,
- Two years rather than the stated reporting period,
- Work of more agents than the 162 hired for the YCGII program.

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The ATF's justification for the YCGII money spent is that it traced 76,260 guns for other agencies and recommended 159 prosecutions. It is difficult to assign value to these efforts since no results of the traces or of the prosecutions are stated. That is, we never see statements that the 76,260 traces resulted in X charges being filed and Y convictions obtained that would not have happened without the leads provided by tracing. For the 159 Federal prosecutions, we never see anything about convictions, pleas, or acquittals. So, the reporting is incomplete for these two results and is similarly incomplete for most of the data given by ATF.

From the limited ATF data, it does appear that more could be done by their agents. Approximately, two investigations per agent per year seems low by any standard. These underemployed agents could be assigned to work some number of Brady law violations aimed at armed career criminals and perhaps the Federal law enforcement could obtain more convictions in that area.

The ATF seems to be excessively focused on non-violent gun crimes (86%). While 100% tracing of all guns seized by police should not be questioned, the ATF reporting of trace results should be limited to violent crimes and crimes where tracing provided the key to obtaining arrests and convictions. Such a limit would focus ATF attention on the important issues of enforcement.

ATF Performance Reporting Deficiencies (continued)

The ATF had 43,714 traces with the gun possessor identified in conjunction with some Federal crimes (Kidnapping, felony firearm possession, Narcotics), but the ATF has not reported Federal prosecutions for

- felony possession crimes,
- possession of gun with altered serial numbers, or
- felony augmentation crimes (e.g., using a gun during the commission of a narcotics crime).

The ATF has not reported numbers for Federal

- investigations closed, convictions obtained, felony convictions, Brady Law violations, or criminal cases concluded.

The ATF has not even reported the number of gun possessors identified who had prior felony records.

So much has not been reported that it begs the question

WHY?

28

The ATF received 43,714 trace request forms having the gun possessor identified on the form. Yet, they have not reported about prosecutions for Federal crimes associated with this large number of forms. Surely it is easy to trace criminal records to determine whether the possessors identified have felony convictions. So, why wasn't this done and reported?

This lack of reporting suggests that the ATF is doing very little on such Federal gun crimes. The ATF needs rigorous performance measures applied to their work to prevent this impression if in error or to provide incentive for change if the impression is correct. Obviously, if the ATF reports many such possessors, the Federal Government would have to prosecute those criminals or explain why it was not.

Trace Request Report Translations

The ATF authors use language that is certain to mislead. To reduce the confusion, we translate.

> *"The National Tracing Center [ATF] is not providing tables that aggregate and summarize all the information in Part II for each individual community. This is because, notwithstanding the large number of traces, the 27 communities combined may not comprise a statistical sample for purposes of national analysis. Nevertheless, some useful conclusions can be drawn." (P 10 of Performance Report)*

Translation from ATF speak:

> The Trace data does not permit desired conclusions to be made when considered as a whole, but there are a few politically correct conclusions that the ATF wants to argue using the whole data, notwithstanding the fact that the ATF admits drawing such conclusions is not appropriate.

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These translations are given to illustrate some of the cases where the ATF ignores limits on the quality of its data and analyses to state conclusions. In some cases the conclusions are not supported by the analysis, in some cases the conclusions are contradicted by the data itself.

By plain speaking, these translations serve to highlight problems with the ATF reports. This slide and the next one show some of the most significant attempts to present distorted gun crime results.

More *Trace Request* Report Translations

"8.1 of every ten crime guns traced were handguns" (P 11 of Performance Report)

Translation:

According to the ATF *Trace Report* more than 6 of every 7 guns covered in the YCGII reports were involved in non-violent crimes or no crimes at all since by ATF definition a crime gun merely has to be suspected of use in a crime. Actually 85.9% or 65,541 of the 76,260 total were not used in violent crimes

-- So handguns are preferred for non-violent crimes.

"Of handguns, semiautomatic pistols clearly predominate, making up the top category of guns recovered in each city, ..." (P 11 of Performance Report)

Translation:

According to ATF data the Smith & Wesson .38 revolver (not a semiautomatic) was the top gun in the All Ages category for 16 of the 27 communities, in the top five for 25 of 27 and in the top 10 for 26 of 27. The Smith & Wesson .38 revolver was the "top gun" in:

Baltimore, Boston, Chicago, Cleveland, Detroit, Inglewood, Jersey City, Los Angles, Miami, New York City, Richmond, Philadelphia, Salinas, Seattle, St. Louis, and D.C.

Still, the ATF wants you to know that semiautomatics are bad guns (especially for non-violent or non-existent crimes).

It is indeed strange that the ATF focuses on non-violent and non-existent gun crimes!

30

Most people are concerned with violence with guns, so why does the ATF focus primarily on non-violent crimes or non-existent (suspected) crimes with guns?

While the ATF received more trace requests for semiautomatic pistols than for other types of pistols, the most frequently traced handgun was the Smith & Wesson .38 revolver. That gun is a quality firearm available in great quantities because it was used in city police forces for many years and has been surplused and sold by those departments to the general public.

For all the cities' complaints about unrestrained marketing of firearms by manufacturers such as Smith & Wesson, it is clear that they have become a source for the pistol that is number one in ATF trace requests. It is also clear that some cities are adopting policies of not selling used police firearms because it diminishes their mayor's ability to be sanctimonious about gun marketing.

The ATF also misleads in that the "8.1 of ten" result is from a limited subset of trace request and not the full set. This limited subset is where the possessor is identified and age is given on the trace request. So, rather than report for 76,260 guns the ATF reports only for 32,653 guns. Why doesn't the ATF report the full results? In the case that the "Top Ten" guns from the All Age category is examined (24,282 firearms), two of the "Top Ten" guns are revolvers. By taking a selection of the ATF data, the 24,282 "Top Ten" guns, we are able to find ATF data which does not support the central role for semi-automatic pistols that the ATF would like. This example of data selection shows the power of statistical distortion available through data selection and justifies skepticism of less than full data set reports from the ATF.

Comments on ATF *Trace Request* Methodology

Some ATF reporting was obviously distorted

- The top gun (most frequently traced) in most communities is the Smith & Wesson .38 revolver but it is not one of the 10 guns (all semi-automatics) identified as bad by the ATF in their *Highlights Report.*

Many cases of sloppy data collection

- Possessor's Age was not recorded in 25% of trace requests where the possessor was identified
- Date a gun was seized was not recorded in 13% of trace requests
- Past year's data ("vaulting") was used with 1998 data with no effort to provide a true annual report

The ATF uses small data sets and random chance fluctuations to create data sets that can be used for "Chicken Little" proclamations.

ATF ignores best evidence available (trace results and trafficking convictions) and, instead, Time-to-Crime is used to indicate trafficking.

31

The ATF follows bad analysis practices which appear to have been chosen to obtain desired conclusions. We summarize these practices that have been observed.

1) The ATF attempts to make the case that semiautomatics are preferred crime guns, so they ignore the fact that a revolver is the most frequently used crime gun in their data set. It is the most frequently used in the total combined data from the 27 cities, and it is also the most frequently used in 16 of the 27 individual cities.
2) The ATF is very sloppy with data collection and does not record data that it should. The recording lapses give reason to suspect the ATF's motives for the analysis. Also, the ATF eliminates data from populations to inflate percentages (Time-to-Crime) for sensational reporting -- "press release" motivated analysis.
3) The ATF creates many small populations which, because they are small, have greater random variability. This variability gives the ATF some groups that have bad characteristics which allow the ATF to play the role of Chicken Little and proclaim that the sky is falling. So, for example, the ATF creates small groups that allow them to claim that New York State and California are "Top Ten" source states for guns in Baltimore and Washington, D.C.
4) The ATF ignores the results of its own investigations and instead reports the information that triggers investigations (Time-to-Crime). So, the ATF uses Time-to-Crime measures to proclaim a trafficking problem despite the statements by ATF analysts that such measures do not show trafficking. Also, the ATF does not report results from adjudications at all.

In the next few slides we look at some of these points with more details.

ATF *Trace Request* Methodology (continued)

ATF use of "Top Ten" categories is Misleading!

- *Top Ten* categories give sets of guns having too few members to be a statistically significant population
- Chance factors work to deliver erroneous results in these cases
- Some silly and obviously wrong results are overlooked by ATF in some cases while the same Methodology is used to draw "politically correct" conclusions in some others
- If a Methodology leads to error, it is suspect in all cases

ATF use of statistics is

- Politically motivated
- Counts on the statistical naivete of the general public, and
- bad science (**Misleading**).

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Some "top ten" categories have very few members. For example, the *Trace Report* for Atlanta juveniles (Table G) has 38 guns in the 10 "Top Ten" categories. Only one gun, the Lorcin .380, has as many as 10 members. The remaining 9 gun categories each have 5, 5, 3, 3, 3, 3, 2 and 2 guns. The percentage of fast Time-to-Crime shown in that table is 44.4, 20, 60, 100, 100, - , 0, - , 50, - where - means none of the guns have Time-to-Crime determined.

The high percentages for Juvenile fast Time-to-Crime become a source of excited reports by naïve media which proclaims a huge trafficking problem with the implication of guns being sold from the factory directly to criminals.

Now any statistician would say the individual numbers are too small to draw conclusions of high confidence. Looking at the aggregate of juvenile guns, only 12 of 38 show the fast Time-to-Crime characteristic. This 31% number is more consistent with experiences with aggregates over all communities and is consistent with the biased statistical expectation given ATF policy of tracing guns sold after 1/1/90. That is, from the size of this sample it is statistically improper to conclude that the 31% of "fast Time-to-Crime" guns is not due to a combination of stolen guns which were stolen at random and recovered at random. That is, the result is purely due to chance.

Atlanta is particularly interesting because they were very sloppy about recording age of possessor (only 15.4% of the trace requests recorded age). So, the groups (and their sizes) appear to have been "cherry picked" to accomplish a desired result.

Because of the small sample size effects, cherry picking of data, and elimination of guns sold prior to 1/1/1990 biasing effects, the ATF fast Time-to-Crime (trafficking) percentages do not represent a valid statistic of gun trafficking.

ATF *Trace Request* Methodology (continued)

The ATF's selection methodology gives data that does not reflect crime in the community -- especially does not reflect violent crime!

- The following communities had fewer than one gun traced for every three murders or manslaughters in 1998 FBI UCR

Baltimore	1 in 3.35 (93 guns in 312 murders & manslaughters)
Birmingham	1 in 5.68 (19 / 108)
Bridgeport	1 in 5.67 (6 / 34)
Chicago	1 in 3.35 (226 / 757)
Gary	1 in 4.08 (24 / 98)
Salinas	1 in 3.60 (5 / 18)
Seattle	1 in 4.08 (12 / 49)
St. Louis	1 in 3.48 (44 / 153)

- Typically, 1 in 1.67 homicides use firearms so these ratios are atypically high (selective), so ATF trace request homicide data is **not typical**!
  - Specifically, Chicago reported 64% of murders in 1997 used handguns (Ref. Illinois Criminal Justice Information Authority Web site)
  - More than 50% of the guns from homicides in the cities above **are missing (have been selected out)** from the ATF data!

Why are these cities so different from the others?

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Some cities appear to be more selective about submitting guns for tracing from their homicides. It would be useful to understand what causes these differences. The ATF does not provide information to explain it, so we are left with the suspicion that the data is being "cherry picked" (perhaps only Youth and Juvenile killers are being reported).

Since approximately 60% of homicides are committed with firearms, one would typically expect the ratio of trace requests to homicides in a city to be 1 to 1.67. While some deviation from this expected value should be expected because of random fluctuations in the cities, the ATF data has some cities deviating more than would be expected. In the case of Chicago in a previous year, they report 64% of murders were committed using handguns. That would give a ratio of 1/.64 = 1.56. In the ATF account of Chicago we have the ratio of 1 in 3.35.

Such a high ratio means fewer than the expected number of trace requests are being submitted for homicides. That being so, it is reasonable to believe that fewer trace requests are being submitted in all cases for these cities. So, we believe this practice indicates "cherry picking" of the data to provide politically correct conclusions.

ATF Trafficker Detection Performance

ATF's own logic about traffickers suggests poor performance in detecting trafficking crimes

The logic is:

- ATF estimates 1 gun in 4 is trafficked from retail purchases and that trafficker cases involve approximately 11 guns on average
- So there must be at least 1733 traffickers involved in the 76260 guns traced -- i.e., approximately (76260/4)/11
- ATF brought cases against only 276 defendants in 1998.
- Therefore, ATF is missing more than 5 of 6 traffickers in this data

The ATF Reports say nothing about this performance -- Why?

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We apply ATF-like logic to determine how well they are doing to attack the gun trafficking problem. Using their averages for numbers of guns per trafficking case and the number of guns they claim are trafficked, we estimate that 1,733 traffickers are doing business in the 27 cities.

1 in 4 guns trafficked ==> 76,260/4 = 19,065 guns trafficked

11 guns average per trafficker ==> 19,065/11 = 1733 traffickers

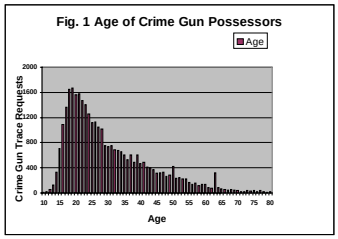
But the ATF has recommended prosecutions only for 276 defendants. So, it has missed, so far, 5 out of every 6 traffickers in business.

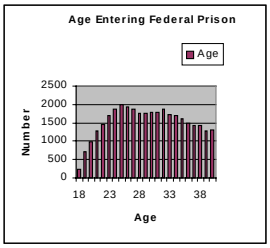
Missing 83% of the criminal traffickers does not seem to be a desirable performance.

Is the ATF estimate of the number of guns trafficked (1 in 4 submitted for tracing) correct? We'll never know the answer to that question without seeing a report based on investigations rather than an artificial "Time-to-Crime" criteria.

Congress should demand a more rigorous accounting.

ATF Claims of Youth and Juvenile Violent Behavior





The figure on the left is a histogram published in the Highlights Report showing age of possessors of guns on YCGII trace requests.

The ATF uses this figure to claim that the 18 to 21 year age group are disproportionately criminal.

- The Figure's data do not represent adjudicated cases and are mostly about non-violent crimes or no crimes at all.

The figure on the right is a histogram of ages of adjudicated criminals entering federal prisons

(ref. Federal Justice Statistics Resource Center Web site at http://fjsrc.urban.org/noframe/wqs/q_intro.htm#1996)

- This histogram shows that 18-21 year olds are not unusually criminal -- but it is possible that the Federal Government is just not locking up the gun criminals identified by the ATF

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The histogram data on the left does not include a complete trace data set. It omits 11,061 individuals identified on trace forms submitted to the ATF whose ages were not given. **This additional set of individuals, being 25% of the possible cases, is large enough to change the population distribution significantly and large enough to invalidate any conclusions based on the figure.** The ATF has not explained why it could not obtain the age for the 11,061 persons identified but omitted. By presenting such incomplete data, the ATF demonstrated carelessness or a willingness to distort truth. More importantly, **the ATF data** does not represent adjudicated cases and **contains data where a crime may have been only suspected**.

By contrast, the histogram data on the right includes only adjudicated cases of individuals entering Federal prison in 1996. It peaks at age 25 not age 19 and the proportion of 18, 19, and 20 year old criminals is 4.1% of that criminal population. Citizens of ages 18, 19, and 20, young adults, amount to approximately 4.1% of the overall U.S. population so the numbers of adjudicated criminals are not disproportionate to their proportion of the total population. Why should the two histograms have such different peak location? Eliminating 11,061 individuals from the left Figure gives one reason. Differences between suspected criminals and adjudicated criminals gives a second. A third difference is that the ATF distribution consists mostly of non-violent firearm offenses and some cases where there was only a suspicion of a crime. That is 86% of the offenses used to construct the figure on the left are not violent and many may not be crimes at all.

It appears that the ATF data is not representative of any national violent crime, does not show valid indications of criminal activity of 18, 19 and 20 year old adults so no national policy should be determined by this data.

Summary of Findings

The ATF --

- Uses data which shows evidence of careless collection, employs unsound and biased methodology to analyze the data, does not account for demographic factors in the data analysis that it should, and represents gun crimes with data that is 86% non-violent or non-existent crimes,
- Draws conclusions not justified by the data, and
- Presents limited data permitting judgement of ATF performance.

Congress should require performance data from the ATF which illuminates the value added by their efforts.

Nothing in the conclusions presented by the ATF can be accepted on their face until they begin to employ better analysis methods.

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The ATF reports are political instruments written to argue for conclusions that are desired by the current administration. To support those arguments, the ATF authors used unsound statistical methods including some methods with biases that were ignored.

In some cases, the ATF methods are so poor that they lead to conclusions which are absurd on their face.

Many questions about ATF performance can be raised, but not answered from the data of these reports.

Congress should demand better from the ATF. If Congress can't get it, they should send the money and the program to the FBI.

Appendix -- Percentages Tabulated

Trace Requests	100.0%	Assaults &Threats (from All)	8.2%
Possessor Identified	57.3%	Assaults &Threats (age <18)	0.2%
Age Determined	42.8%	Assaults &Threats (from 18-24)	0.9%
Date Gun Seized	86.7%	Assaults &Threats (from 25 and older)	2.6%
Trace Initiated	66.9%	Assaults &Threats (Age Unknown)	4.4%
Not Traced 1990	30.0%	Violent Total (from All)	14.1%
Not Traced Other	3.1%	Violent Total (age <18)	0.5%
Traced to a State	48.5%	Violent Total (from 18-24)	2.0%
Traced to FFL	44.7%	Violent Total (from 25 and older)	3.9%
Traced to Buyer	40.1%	Violent Total (Age Unknown)	7.7%
Own State Source	28.1%	Firearm Offenses (from All)	67.7%
Top 10 States Without Own State	14.1%	Firearm Offenses (age <18)	3.7%
Other 40 States	6.4%	Firearm Offenses (from 18-24)	9.2%
Juvenile; Age<18	4.9%	Firearm Offenses (from 25 and older)	14.7%
Adult; Age<25 (Youth)	13.9%	Firearm Offenses (Age Unknown)	40.0%
Adult; Age>=25 (Adult)	24.1%	Narcotics (from All)	9.7%
All Top Ten Totals	26.8%	Narcotics (age <18)	0.3%
All Top Ten<3	6.1%	Narcotics (from 18-24)	1.8%
Juv Top Ten Totals	1.7%	Narcotics (from 25 and older)	3.3%
Juv Top Ten<3	0.3%	Narcotics (Age Unknown)	4.3%
Homicide (from All)	3.0%	All Other Crimes (from All ages)	8.5%
Homicide (age <18)	0.1%	All Other Crimes (age <18)	0.2%
Homicide (from 18-24)	0.4%	All Other Crimes (from 18-24)	0.8%
Homicide (from 25 and older)	0.6%	All Other Crimes (from 25 and older)	2.3%
Homicide (Age Unknown)	2.0%	All Other (Age Unknown)	5.2%
Robbery (from All)	2.7%	Kidnapping (from All)	0.1%
Robbery (age <18)	0.3%	Kidnapping (age <18)	0.0%
Robbery (from 18-24)	0.7%	Kidnapping (from 18-24)	0.0%
Robbery (from 25 and older)	0.6%	Kidnapping (from 25 and older)	0.0%
Robbery (Age Unknown)	1.2%	Kidnapping (Age Unknown)	0.1%

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The table of this slide corresponds to the Figure in the slide entitled:

What the ATF Data Show

The percentages are of the 76,260 trace requests submitted and reported by the ATF as processed by the YCGII Program. These percentage numbers are given for those who might want a little more precision than would be possible from the graph.

There is also an Excel Workbook available from the author with the data discussed.