
DRUG TRAFFICKING AS A COTTAGE INDUSTRY

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***Abstract:** The structure of illicit drug markets is not well defined. This is particularly true of illicit markets that operate, at least in part, above the retail level. In this paper we contrast two hypotheses concerning how such markets are structured. The first posits an oligopolistic market composed of a relatively small set of large, hierarchically organized distribution networks. The second hypothesis posits a cottage industry of drug trafficking composed of many small groups of traffickers that form and break-up easily. Using data collected from federal, state and local drug investigators in the Washington-Baltimore area, we examine the behaviors of traffickers investigated in 1995, 1996 and 1997. These data suggest that the cottage-industry hypothesis is a better characterization of drug trafficking in the Washington-Baltimore area than the concentrated-industry hypothesis. We conclude by drawing some implications for the control of wholesale drug markets.*

MODELS OF CRIME ORGANIZATIONS

How can we prevent drug trafficking? Answering this question requires us to know a great deal about the behaviors of traffickers. In particular, we need to know how illegal drugs get from their source to their points of retail sale. Despite increasing research on retail drug

dealing, much less is known about the illicit transactions that precede sales to final consumers. This is not surprising: these transactions are better hidden and the drug enforcement agencies that operate at this level have received less scrutiny from outside researchers. Since little is known about middle-level drug distribution, domestic policies to address this problem rest exclusively on enforcement. Yet the same lack of information stifles policy makers' ability to evaluate the effectiveness of enforcement and to find alternative means for interrupting the flow of drugs through the United States.

Middle-level drug trafficking is a form of organized crime, but the question is, how organized is it? In a recent article, Liddick (1999) contrasts two models of organized crime. The enterprise model asserts that the primary forces governing organized crime are the same forces that govern legitimate business and that organized crime groups (like legitimate business organizations) cannot grow unless there are economies of scale in their illegitimate industry. Reuter's (1983) analysis of gambling and loan sharking found that most illegal enterprises were small, largely because the economic conditions of their markets did not lend themselves to large oligopolies. Alternatively, the "conspiracy/bureaucratic" model of organized crime suggests that criminal organizations can grow to large sizes due to the ability of ethnic networks to dominate illicit markets through intimidation and corruption (Liddick, 1999). Based on an analysis of 51 New York City Police investigations conducted in the 1960s, Liddick (1999) suggests that the conspiracy/bureaucratic model may be superior to the enterprise model. Jacobs' and Gouldin's (1999) recent description of the Cosa Nostra also is more consistent with the conspiracy/bureaucratic model than the enterprise model.

These two models have major implications for law enforcement. The enterprise model implies that criminal enterprises are small, common, and difficult for law enforcement to suppress. In contrast, the conspiracy/ bureaucratic model suggests that a concerted and persistent attack by law enforcement can significantly curb the power of such an organization (Jacobs and Gouldin, 1999). Since these models and their supporting research are based largely on illicit markets other than drugs (for an exception, see Reuter and Haaga, 1989), on criminal enterprises in New York City, and rely on small samples of cases over twenty years old, it is not clear how well they describe current drug trafficking in other parts of the United States.

In this paper we will examine the behavior of drug traffickers in one part of the United States — the Washington/Baltimore region — using a unique data set containing information about drug traffickers

obtained from systematic interviews of federal, state, and local investigators targeting mid-level drug traffickers. We begin by describing two contrasting hypotheses about the structure of drug traffickers operating within the borders of the United States. As we will see, these hypotheses form the basis of drug-control policy decisions. We use these hypotheses to organize our data and descriptions of drug trafficking.

The largest part of this paper describes drug-trafficking behaviors related to six core activities: (1) *communication* among traffickers; (2) the traffickers' *organizational* structures; (3) the methods of *moving* drugs from place to place; (4) the physical and social *environment* that the traffickers use; (5) the packaging of drugs for *transactions*; and (6) the *security* traffickers use to protect themselves. We will use information about these six behaviors to draw inferences about the nature of drug trafficking in the Washington/Baltimore region, and, by inference, throughout the United States.

Our paper concludes with suggestions for prevention and research. Because the data set we use is unique, additional research is required before definitive conclusions can be drawn.

TWO VIEWS OF DOMESTIC DRUG TRAFFICKING

Domestic drug trafficking has not received extensive empirical scrutiny by social scientists (see Karchmer, 1992; Adler, 1985; and Natarajan, this volume for counter examples). There are two reasons for this. First, it is the least visible part of the drug-distribution process. Retail markets have to be somewhat visible so that buyers and sellers can meet and transact business. This makes them vulnerable to police actions. Social scientists can study these markets by examining police data and talking with police officials, or by directly interviewing or observing the buyers and sellers involved (Olligschlaeger, 1997; Edmunds et al., 1996; Green 1996; Weisburd and Green, 1995; Eck, 1994; Williams, 1989). Though the growth and smuggling of drugs is far less visible than retail markets, both the production and smuggling of drugs requires activities that increase the risk of detection from law enforcement. Data resulting from law enforcement can be used to construct models of drug flows and prices (see, for example, Reuter and Kleiman, 1986). Between these two extremes, the movement of drugs becomes virtually invisible.

The second reason we have so little research into the nature of drug trafficking has to do with the nature of drug enforcement. Domestic drug-trafficking investigations are conducted by a collection of

federal, state and local police agencies, sometimes organized into multiagency, multijurisdictional task forces. Researchers have difficulty getting access to these law-enforcement groups because they are less open than local police organizations. Further, domestic drug intelligence appears to focus on case-making — supporting complex investigations — rather than learning about the overall structure of drug trafficking in a region. Though strategic information could be made public, tactical information is seldom released and then only for adjudicated cases. Though an important source of information, prosecutorial case records have two important limitations. First, they are unlikely to contain case information not revealed in court. Second, they exclude cases not prosecuted and cases plea-bargained so as to avoid evidentiary disclosure to defendants' attorneys.

The consequences of secrecy on the part of the offenders and the police is that we have little systematic information on this important part of drug trafficking. This can lead to reduced policy options and misdirected antidrug strategies when policies are based on unverified assumptions about the drug trafficking industry.

As a framework for examining domestic drug trafficking, we will contrast two polar hypotheses describing this industry. The first is the "concentrated industry" hypothesis. It has a strong resemblance to organized crime as depicted in movies, in television and in popular fiction. The concentrated industry hypothesis is consistent with the conspiracy/bureaucratic model. The second is the "cottage industry" hypothesis. This hypothesis is the antithesis of the first and is more consistent with the enterprise model.

Concentrated Industry

The concentrated industry hypothesis asserts that the movement of drugs from importation (or domestic production, as in the case of some marijuana or methamphetamine) to retail sales is controlled by a few highly organized groups. These highly structured groups have abundant resources so they use sophisticated technology to remain hidden from law enforcement and to dominate their markets. They distribute most of the drugs in a region, and they can move large volumes of drugs in a short time. These few groups are well entrenched, but if they could be eliminated it would take a long time for these organizations to be replaced. In the interim, the volume of drugs in the region would be less. Their elimination would create at least a short-term disruption in retail drug markets.

The concentrated industry hypothesis implies that trafficking organizations, though well hidden and entrenched, are somehow sepa-

rate from normal society. Though this hypothesis is seldom stated so bluntly, it appears to be commonly accepted by some policy makers, particularly at the federal level of enforcement. In 1996, for example, the Office of National Drug Control Policy (ONDCP) issued a program guidance to the High Intensity Drug Trafficking Areas (HIDTA) funded by ONDCP. The HIDTAs are federally funded, multiagency, drug-enforcement projects in particularly troublesome drug importation, manufacturing, growing, or distribution regions. The program guidance stated that the "(f)unding levels for each HIDTA will be adjusted on the basis of...[t]he impact of dismantling or severely disrupting the most significant national, regional and local drug trafficking organizations (particularly those having a harmful impact in other areas of the Country)" (ONDCP, 1995:1).

The 1999 National Drug Control Strategy set goals, objectives, and measures for various efforts to control drug problems in the United States. Under the Objective to "Improve the ability of High Intensity Drug Trafficking Areas to counter drug trafficking," this document set as a target, "By 2002, increase the proportion of drug trafficking organizations disrupted or dismantled as identified in HIDTA threat assessments by 15 percent above the proportion in the 1997 base year. By 2007, increase the proportion disrupted or dismantled to 30 percent above the base year ratio" (ONDCP, 1999:109). The proportion of trafficking organizations disrupted or dismantled by or within HIDTAs is to be used as the measure of compliance with this target.

These objectives only make sense if a relatively few drug organizations control a given market and if they cannot be easily replaced. If the industry is not concentrated in this way, then dismantling and disrupting will have little impact on drug trafficking.

Cottage Industry

In contrast to the concentrated industry hypothesis, the cottage industry hypothesis asserts that domestic drug trafficking, from importation to retail, is handled by a large number of small groups and individuals. Entry and exit from this industry is relatively easy and common, and no group or individual controls a large proportion of the drugs brought into an area. Many of these groups have weak organizational structures; firmly established leaders may be absent; there is likely to be an absence of specialization; and group membership may be fluid. Their access to the resources needed to use sophisticated technology is limited, so they use common, everyday, off-the-shelf technology that is easy to learn and not particularly expensive. Their access to transportation is highly variable. Some have ve-

hides, but others may not. Consequently, they will use private automobiles and public transportation. No trafficker will move a great volume of drugs at one time, though over time and collectively they will move large quantities of drugs. The consequence is that even the removal of the largest of these organizations will have little detectable impact, even in the short run, on regional availability of drugs.

Like the concentrated industry hypothesis, the cottage industry hypothesis is seldom stated explicitly. Nevertheless, there seems to be at least tacit acceptance of it by some law enforcement officials, particularly at the local level. Which hypothesis is the better description of drug trafficking? After we describe the source of our data, we will use the data to address this question.

DATA COLLECTION

The Washington/Baltimore HIDTA

The Washington /Baltimore High Intensity Drug Trafficking Area (W/B HIDTA) is a drug enforcement, treatment and prevention program funded by the Office of National Drug Control Policy in the urban and suburban cities and counties of Maryland and Virginia, including the District of Columbia and the City of Baltimore. The two biggest drug problems in the area are cocaine (including crack) and heroin, although marijuana is widely used. While methamphetamine is not a major problem, there have been some seizures of it within the region (W/B HIDTA, 1998).

Drug enforcement operations are carried out by 23 squads, known within HIDTA as "initiatives," comprised of investigators from federal, state, and local jurisdictions. Investigators come from the Drug Enforcement Administration, U.S. Customs Service, Secret Service, Federal Bureau of Investigations, Bureau of Alcohol, Tobacco and Firearms, the Virginia State Police, the Maryland State Police, Metropolitan (DC) Police Department, Baltimore Police Department, and other city, county, state and federal agencies. These initiatives focus on a variety of drug related problems: (1) interdicting drug shipments at airports (there is one national and two international airport in the region), bus terminals, and train stations; (2) investigating money laundering; (3) disrupting drug trafficking networks; and (4) breaking up illegal firearms-trafficking operations. On occasion, W/B HIDTA-funded investigators have addressed concentrated retail markets, but this is not their primary focus.

The initiatives are located in any of four W/B HIDTA offices around the region. These initiatives are assisted by four support systems. First, a computer network connects all 23 groups and allows quick and secure information exchange. An intelligence section provides advanced case support on complex investigations. The Watch Center permits quick access to federal, state, and local police data bases, as well as private proprietary data bases. The Watch Center also serves as a "firewall" to prevent unauthorized use of these data. Finally, the W/B HIDTA has an administrative component that provides strategic direction, fiscal oversight, software development and evaluation. The information used in this paper comes from the Law Enforcement Evaluation Section, a part of the administrative component.

The W/B HIDTA is the only HIDTA with a full time evaluation staff. The evaluation section was created with the formation of the W/B HIDTA in 1994. As a unique entity, it had to develop a new approach to evaluating HIDTA performance. The authors have in the past or currently head the evaluation section.

C.O.M.E.T.S.

To develop an evaluation strategy, we had to confront several issues. First, experimental manipulation of law enforcement tactics was not possible. The W/B HIDTA was established to facilitate coordination among law enforcement agencies across the region, including local, state and federal agencies. No provisions were made for scientifically testing tactics and strategies. Second, available data on drug-trafficker enforcement were inadequate. They consisted of information describing law enforcement activities, including arrests for drug trafficking and related offenses, drugs seized, money and goods confiscated, and offenders prosecuted. Third, there was no body of evidence or theory that suggested the law enforcement practices envisioned for the W/B HIDTA would create substantial reduction in drug trafficking.

It seemed reasonable, however, that effective law enforcement might change the nature of drug trafficking, even if it could not eliminate it. Law enforcement might displace trafficking behaviors so that traffickers became more efficient at avoiding law enforcement, and as a consequence, less efficient at distributing drugs. That is, for the same level of effort, traffickers who spent more energy avoiding being caught would be able to distribute fewer drugs. In the long run, this would reduce their drug trafficking capacity, even as it improved their effectiveness at thwarting legal intervention. If this occurred,

law enforcement agencies would have the choice of either living with decreasing returns for their efforts, or changing enforcement tactics to improve their effectiveness. When explaining this theory to law enforcement practitioners, we often used the analogy of predator-prey coevolution.

This theory of enforcement-trafficker coevolution provided a structure for organizing the evaluation. First, we had to measure the behavior of drug traffickers. Second, we had to measure this behavior repeatedly, over many years, to detect changes. This meant we needed to develop a procedure for accomplishing these two objectives. There are several ways of doing this: interviewing offenders on the street, interviewing arrested offenders, or interviewing people knowledgeable about offenders, such as police officials. We chose to interview law enforcement officials for purely pragmatic reasons. We had access to them. We could ask them detailed questions. We could bound the questions by focusing on recent investigations, rather than offenders in general. We could do this repeatedly, year after year. And these respondents would have credibility in the eyes of the primary users of the evaluation reports: law enforcement executives.

Discussions with law enforcement officials and intelligence analysts suggested that we could divide trafficking behavior into six categories, and the name for the data collection process took its name, COMETS, from the acronym formed from the names of these categories. Questions about communications focused on how traffickers signaled their suppliers, customers, and each other. Organizational questions delved into the structure of the group trafficking in drugs. In the movement category we addressed the way drugs were transported from one location to another. The physical and social settings of trafficking were examined in the environment section of the questionnaire. The transactions section dealt with the way traffickers packaged, priced and disguised their goods. Finally, we examined the ways traffickers protected themselves from other offenders and the police in the security part of the data collection instrument. Several drafts of the questionnaire were developed, discussed and field tested.

We then took the questionnaire to the W/B HIDTA Executive Committee. They were concerned with two issues. First, we had originally proposed having the questionnaire completed by the lead investigator for every case investigated. Since the board felt this would impose a large burden on investigators, we adopted a sampling strategy. Second, the questionnaire, which was very long, was shortened to about 15 pages. We also switched from having the instrument self-

administered to having the evaluation staff conduct interviews. With minor modifications, the questionnaire approved by the Executive Committee is the questionnaire the W/B HIDTA has used for its annual survey.

Collection Methods

At the beginning of each calendar year, the evaluation section receives a list of case numbers for investigations begun in the previous year. For the 1995 cases, a minimum of 10 cases was randomly selected from each group (all were selected if a group had fewer than 10 cases). In subsequent years the minimum number of cases was increased from 10 to 20. A member of the evaluation section then contacted the supervisor of each investigative group, told them of the cases selected and arranged times to interview the lead investigator for each sampled case. If the lead investigator was not available, then the supervisor of the group was interviewed.

It was not always possible to gather information about a sampled case. The case may have been closed and adjudicated, the case file may have been shipped to the agency's headquarters for storage, or the investigator transferred or retired. In such circumstances there would be no information about the case available, nor would anyone familiar with the case be available to answer the survey questionnaire. When this occurred, no interview was conducted for the case and the case was treated as missing. About 9% of the target sample was missing, yielding a 91% completion rate for interviews. Though these missing cases reduce the representativeness of the overall sample, for this analysis they are less troublesome. They were far more likely to involve quick investigations of small trafficking groups than long term investigations of large organizations.

The COMETS data we will use comes from 445 sampled cases (representing 620 cases) from drug trafficking investigations begun in 1995, 1996, and 1997. Some of these cases had been adjudicated when the data was collected, but many were not, and some cases may never be prosecuted. Table 1 shows, for each year, the number of new cases begun by W/B HIDTA initiatives, the number of cases sampled for which interviews were completed, and the number of sampled cases that were treated as missing. The weighted total of 620 cases for all three years is used in the following tables and figures unless otherwise specified.

Table 1: Cases Investigated and Sampled

| | 1995 | 1996 | 1997 | Total |
|------------------|------|------|------|-------|
| Cases initiated | 203 | 216 | 201 | 620 |
| Completed sample | 120 | 163 | 162 | 445 |
| Missing cases | 6 | 25 | 14 | 45 |

Notes:

Cases initiated = investigations (population)

Completed sample = sampled cases with interviews

Missing = sampled cases without interviews

Though these data were drawn from a probability sample of investigations, it cannot be construed as a probability sample of drug-trafficking organizations operating in the Washington/Baltimore region. That population is unknown and unknowable. There are other law enforcement operations looking into drug trafficking within the region that are not part of the W/B HIDTA. Further, it is highly likely that some drug trafficking groups escape law enforcement detection, perhaps for extended periods of time. Nevertheless, the W/B HIDTA has broad mandate, receives many referral cases from law enforcement agencies throughout the region, and applies a diverse set of investigative strategies. Thus, W/B HIDTA cases probably come closer to depicting the nature of drug trafficking in the region than any other single agency's cases.

Beginning with the 1996 cases, we asked investigators what circumstances prompted the initiation of the investigation. We see in Table 2 that in both years — 1996 and 1997 — involved citizens (i.e., informants) launched the largest proportion of cases. Referrals from another law enforcement group or agency started the second largest proportion of cases. We do not know what prompted these referred investigations, although involved citizens probably are the source.

As noted earlier, the primary drug problems in the Washington/Baltimore region involve crack and powder cocaine, and heroin. Table 3 shows investigators primarily targeted crack and cocaine.

COMPARING THE TWO HYPOTHESES

The COMETS data set is useful for comparing the two hypotheses describing domestic drug trafficking. What would the COMETS data show if one or the other of the hypotheses is reasonably correct? If a

Table 2: Reasons For Initiation of Drug Investigations

| | 1996 | 1997 |
|----------------------|---------------|---------------|
| Involved Citizen | 48.4 | 43.2 |
| Referral | 38.8 | 35.3 |
| Observation | 4.9 | 10.4 |
| Uninvolved Citizen | 2.5 | 7.7 |
| Confidential Sources | 5.4 | 3.5 |
| Total | 100% (216) | 100% (201) |

Types of Sources of Information

Uninvolved citizens – Citizens who have no relationship with offenders reporting information to investigators.

Involved citizens – People involved with offenders providing information to investigators, often for payments (i.e. informant, cooperating defendant).

Confidential sources – Unnamed involved citizens.

Referral – An investigative group passing on information.

Observation – Investigators watching a location.

Table 3: Types of Drugs That Traffickers Move, 1995 to 1997 (percent)

| | 1995 (203) | 1996 (216) | 1997 (201) | 1995-1997 (620) |
|-----------|---------------|---------------|---------------|--------------------|
| Crack | 45.1 | 58.3 | 41.4 | 48.5 |
| Cocaine | 31.7 | 32.6 | 36.8 | 33.7 |
| Marijuana | 16.1 | 15.8 | 22.7 | 18.2 |
| Heroin | 15.4 | 16.4 | 20.9 | 17.5 |
| Other | 9.9 | 6.9 | 9.0 | 8.4 |

concentrated industry is operating in the Washington/Baltimore area, then we would expect the investigated traffickers to be using technology that could block law enforcement access to their commu-

nications - secured fax and telephones, computers and clone phones. We would expect them to be involved with large groups with designated leaders and a hierarchical organization. Traffickers in concentrated industries should be able to move large quantities of drugs. If they move large quantities, we might see some use of large vehicles. It is not clear what types of physical or social environment concentrated industry traffickers should operate in. Drugs in a concentrated industry should be carefully hidden from law enforcement to avoid detection. Finally, traffickers in a concentrated industry should show evidence of threatening or using force to protect their assets.

In contrast, cottage industry traffickers would have a somewhat different set of characteristics. We would expect them to use everyday technology and not use encryption or other sophisticated technology. Their groups should be small and unstructured. Cottage industry trafficking should be characterized by the movement of small amounts of drugs that can be hidden on a person or in a private automobile. It is not clear what type of environment cottage industry traffickers would prefer or whether their preferences would be different from concentrated industry traffickers. These traffickers, however, would probably not engage in elaborate deceptions to hide their drugs, rather they would use common subterfuges available to virtually anyone. Finally, we would expect cottage industry traffickers to use threats and actual force to protect themselves.

Table 4 summarizes the differences between these two hypotheses with regard to each of the six types of behaviors.

THE BEHAVIORS OF DRUG TRAFFICKERS

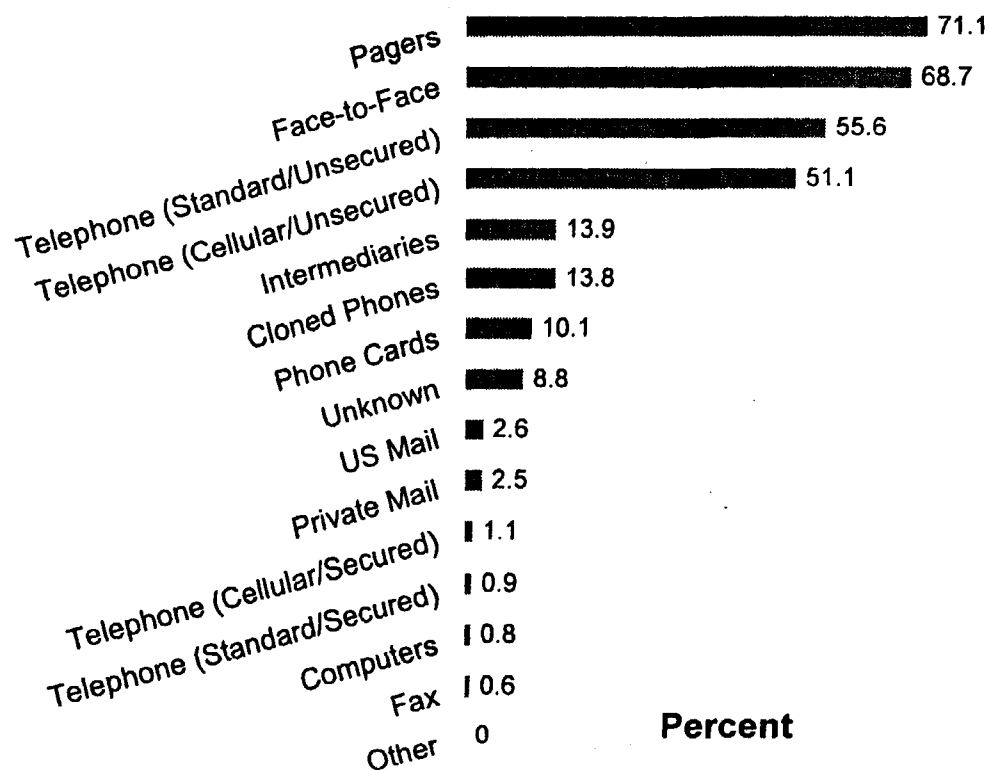
Communications

Drug traffickers investigated in the Washington/Baltimore region use standard technologies available to most people. We see in Figure 1 that the most frequently used communication methods do not require much sophistication. Nor are these methods secure from law enforcement. They are, in fact, communication methods commonly used by many people for transacting normal, legitimate business. At the other extreme, secured telecommunications are rarely used. Investigators found very few traffickers used computers to communicate.

Table 4: Expected Behaviors of Traffickers by Hypothesis

| | Concentrated Industry | Cottage Industry |
|-----------------------|--|---|
| Communications | Use of sophisticated technology to block law enforcement | Use of common everyday technology |
| Organization | Large stable groups, hierarchically structured | Small temporary groups, with little structure |
| Movement | Large quantities | Small quantities |
| Environment | No prediction | No prediction |
| Transactions | Carefully hidden and disguised from law enforcement | Barely hidden |
| Security | Use of threats and force | Use of threats and force |

Natarajan, Clarke and Johnson (1995) drew attention to a new development in illicit, drug trafficking communications technology: clone phones¹ (see also Natarajan et al., 1996). We did not ask about clone phones during the first year of data collection, so we have information about their use for only 1996 and 1997. For those two years, cloned phones are the only common communication mechanism used by traffickers that are not used by the general public: 13% of the traffickers investigated used cloned phones. We do not know the degree to which the production of cloned phones is highly organized. If it is a relatively decentralized form of criminal activity, then the use of cloned phones does not support the concentrated industry hypothesis. If phone cloning is a highly concentrated criminal enterprise, then this finding could be construed as weak evidence for the concentrated industry hypothesis. But even in this case, it is possible to have a highly concentrated phone cloning enterprise supporting a very fragmented drug trafficking industry.

Figure 1: Communication Methods

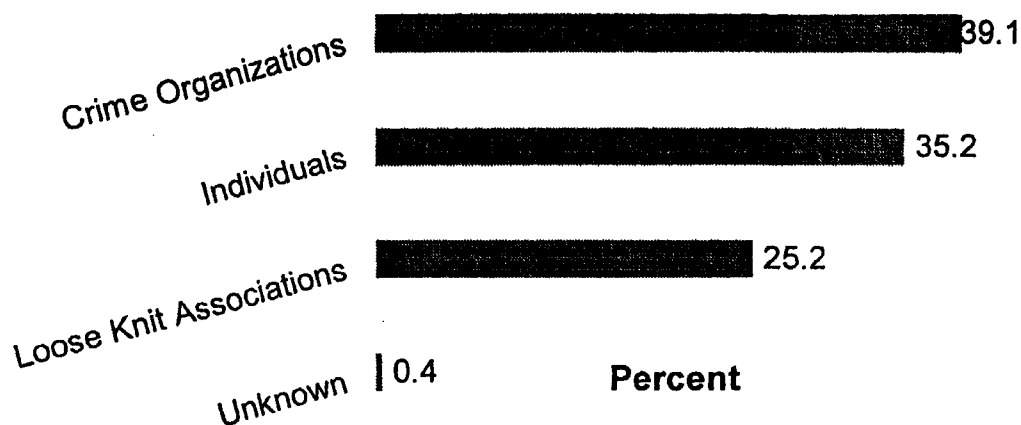
Organization

We asked investigators to describe the organizational structure of the trafficking groups they were investigating. Roughly a third (35%) were individuals without any obvious organizational affiliation. Another one-quarter (25%) were part of loose knit groups. That is, the trafficking was handled by friends and acquaintances without any formal organizational structure. Almost 40% (39.1%) were involved in some form of criminal organization. This is shown in Figure 2.

Table 5 shows the distribution of sizes of these groups. First, over a third of the traffickers are individuals, seemingly operating alone. When traffickers are involved in networks, these networks do not

seem to involve many people. Among organized groups, we see that most are small, although there are a few that have more than 20 members. If the region is dominated by a few large criminal organizations, then it is among these organizations we are most likely to find the traffickers.

Figure 2: Organization Type



Movement

There are two questions we can ask about movement patterns. The first is how far (or from where) the drugs are being moved. The second is how are the drugs being moved. Table 6 addresses the first question. Most of the drugs the groups are moving have their source within the region, indicating that traffickers are purchasing drugs locally for sales locally. Since cocaine, heroin, and the vast majority of marijuana are not produced in the region, they have to come from somewhere outside the region. Investigators we have interviewed indicate that New York City is the single biggest source. This seems reasonable since it is a five-hour car ride at legal speeds from Washington DC, and even less from Baltimore. Buses, trains, and planes provide easy connections to New York from Washington and Baltimore.

Table 5: Size of Trafficking Groups (in percent)

| Number of Members | Individuals | Loose Knit | Organized | Total | |
|-------------------|-------------|------------|-----------|-------|-------|
| | | | | % | n |
| 1 | 100.0 | 0 | 0 | 36.5 | (222) |
| 2-5 | 0 | 62.1 | 17.1 | 22.2 | (135) |
| 6-10 | 0 | 15.7 | 23.9 | 13.1 | (80) |
| 11-15 | 0 | 7.2 | 15.0 | 7.6 | (46) |
| 16-20 | 0 | 3.9 | 10.7 | 5.1 | (31) |
| 21+ | 0 | 2.0 | 17.1 | 7.1 | (43) |
| unknown | 0 | 9.2 | 16.2 | 8.5 | (52) |
| Total | 100% | 100% | 100% | 100% | (609) |
| n | (222) | (153) | (234) | | |
| missing cases | | 3 | 8 | | 11 |

How drugs are moved is shown in Figure 3. The most common methods of transport are the least sophisticated and cannot be distinguished from the activities of other people engaged in everyday legal activities. Large volume vehicles, and some, everyday transportation methods are seldom used by traffickers. Commercial aircraft is not a common method of transporting drugs, though one would expect it to come up frequently given the attention to airports by W/B HIDTA interdiction investigators. There are two explanations for this. First, commercial flights are expensive relative to cars, buses, and even trains. Second, airport security designed to thwart terrorism may also curb drug trafficking. In 1996, when airport security was heightened, investigators reported fewer drug traffickers using airports.

Environment

Where do drug traffickers do their business? The traffickers investigated by the W/B HIDTA typically conducted their business in residences or in public places. Almost 10% of the trafficking groups used entertainment spots — such as nightclubs, restaurants and bars — as sites for their activities. They were seldom found in public housing (the stereotypical location of retail drug dealers).

Table 6: Drug Source (Origin Of Goods)

| | |
|--------------------------|--------|
| Within W/B HIDTA Region* | 22.8 |
| Eastern Seaboard* | 36.9 |
| Other Parts of the US* | 8.7 |
| Other Countries* | 5.6 |
| Unknown | 16.6 |
| Not applicable** | 9.5 |
| Total | 100.0% |
| (n) | (613) |
| (missing) | (7) |

* Does not contain groups from rows above.

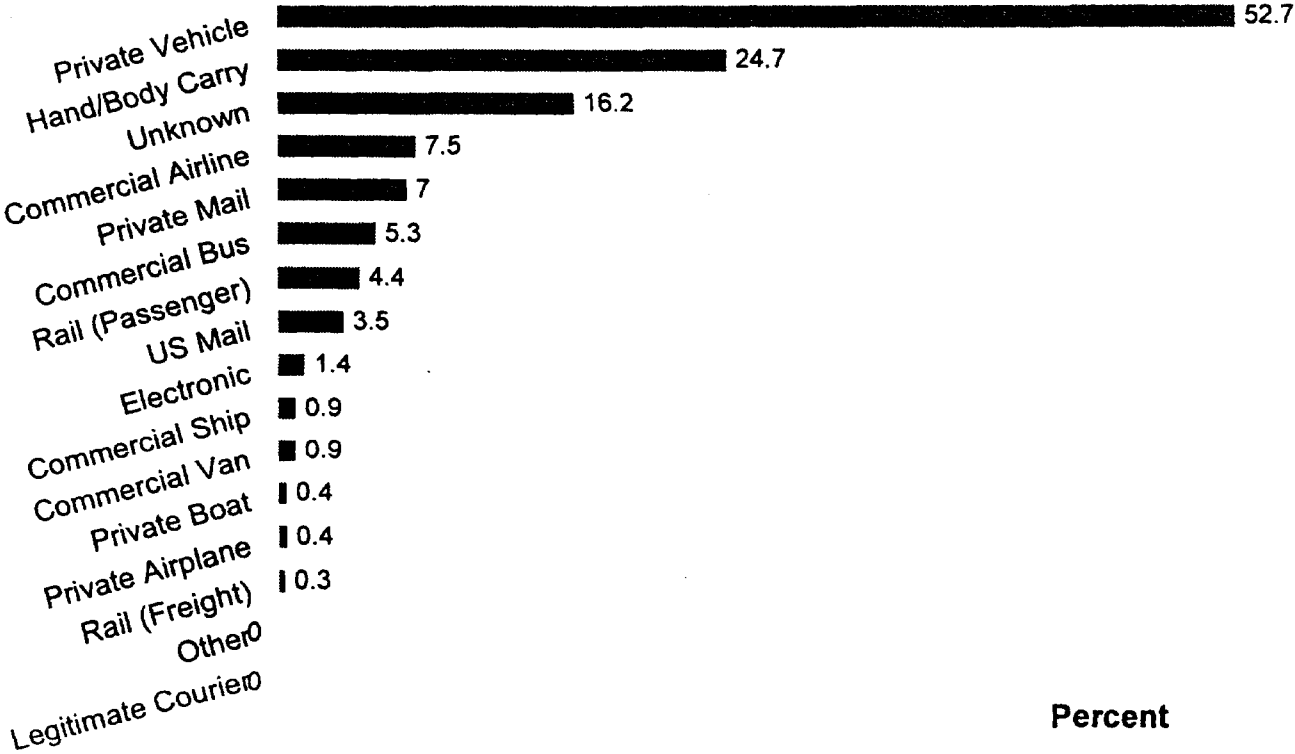
**For example, drug possession

Transactions

The COMETS data set contains a variety of information about the packaging of drugs. The packages are not carefully concealed or marked with a brand name (Table 7). Traffickers do not seem to take major precautions in disguising their drugs. Neither do they use distinctive markings or packaging to capitalize on "brand name recognition."

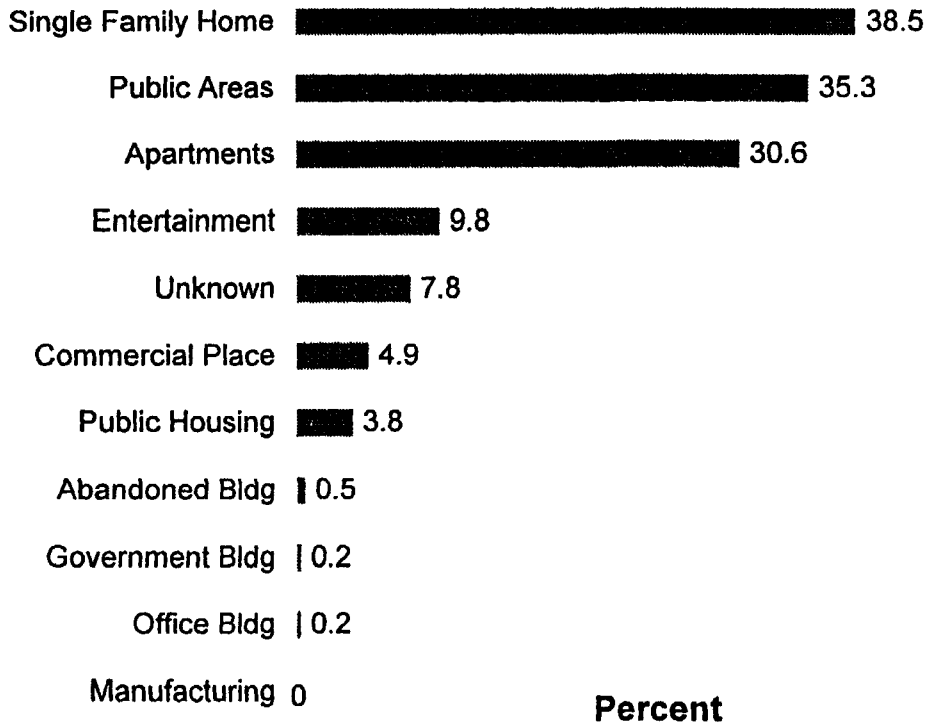
Investigators also revealed that most of the drug parcels were small to moderate in size (Table 8). Crack cocaine parcels are generally very small — usually under 30 grams. The size distribution of cocaine and heroin parcels is bimodal — many below 30 grams and another large group in the one-to-10 kilogram range. In comparison, the distribution of marijuana parcels is quite even. Except for some of the marijuana shipments, the drug parcels can be carried either by hand or in small vehicles. In short, the size range of parcels is well within the capabilities of small trafficking organizations to handle on a sporadic or regular basis.

Figure 3: Methods of Moving Drugs



Percent

Figure 4: Drug Trafficking Locations



**Table 7: Packaging of Drugs
(percent)**

| | |
|-----------------------|------|
| Packaging unknown | 10.2 |
| Distinctive packaging | 4.6 |
| Distinctive markings | 3.2 |
| Camouflaged/disguised | 2.6 |

Table 8: Size of Parcels (grams)

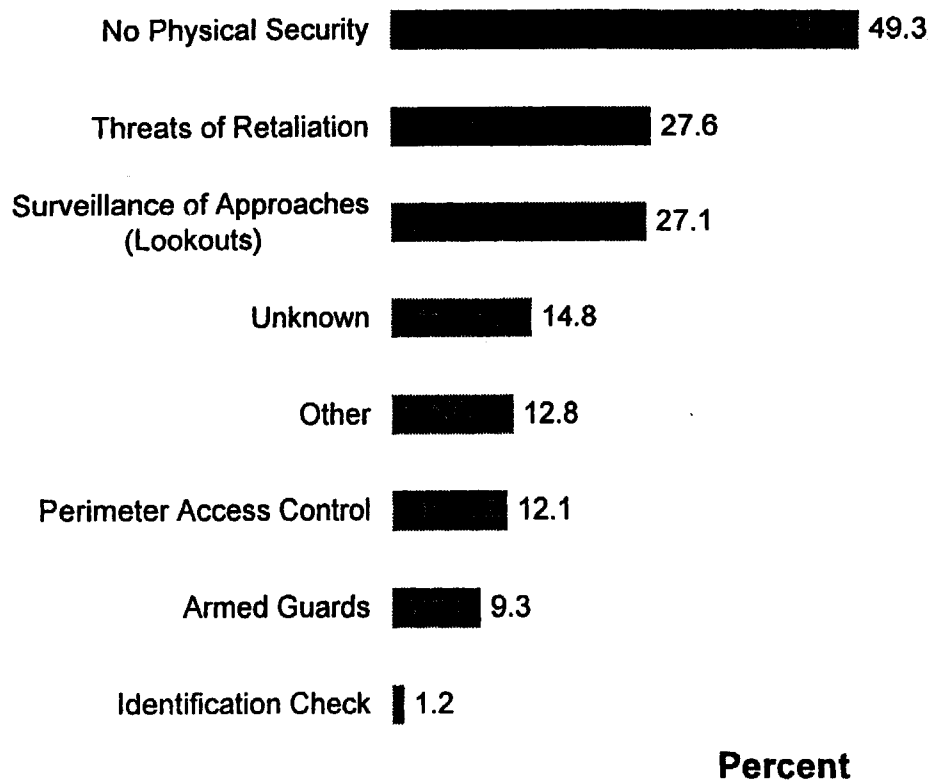
| | Cocaine | Crack | Heroin | Marijuana |
|----------------|----------------|---------------|---------------|------------------|
| < 30 | 25.2 | 36.9 | 24.8 | 15.7 |
| 31 - 62 | 3.0 | 11.0 | 2.6 | 1.7 |
| 63 - 999 | 8.9 | 11.3 | 13.7 | 13.9 |
| 1,000 - 10,000 | 20.8 | 6.6 | 11.1 | 13.0 |
| > 10,000 | 4.0 | 0.4 | 0.9 | 13.9 |
| Unknown | 30.7 | 24.1 | 32.5 | 27.0 |
| Other | 7.4 | 9.9 | 14.5 | 14.8 |
| TOTAL | 100% (202) | 100% (274) | 100% (117) | 100% (115) |

Security

Drug traffickers are concerned about two types of security: protection against other offenders (including robbery of drugs or money), and protection from law enforcement. In the COMETS data base, we have information about each. Although these are distinct forms of security, it is difficult to separate them. The same measures that might protect traffickers from being robbed, can also protect them from law enforcement. The use of threats, for example, can deter other offenders and police informants. This distinction may become blurred because the investigators we interviewed are probably more conscious of security measures designed to thwart them than security measures designed to thwart other offenders and may, therefore, assume that most forms of security are directed against law enforcement. For these reasons, we will examine security in general and will refrain from distinguishing the security targets.

Figure 5 shows the types of security used by traffickers. A large proportion of the traffickers did not use physical security. The dominant type of security was the threat of force, followed closely by surveillance of approaches to their location.

Figure 5: Security Types



DISCUSSION

Analysis of the COMETS data suggests that the traffickers investigated by the W/B HIDTA law enforcement teams do not fit the concentrated industry description. They do not use particularly sophisticated communication technology. With the notable exception of clone phones, they rely on readily available common technology many legitimate business people use. Most of the trafficking groups investigated were fragmented and small, and have limited connections to other traffickers outside the Washington/Baltimore area. Instead of moving large quantities of drugs at any one time, they seem to move

small amounts repeatedly. In addition, they do not seem to use extraordinary measures to conceal their packages; they simply stash their packages out of plain view. All of this information suggests that the cottage industry hypothesis has more support than the concentrated industry hypothesis.

This conclusion is further supported when we examine investigators' estimates of the "market share" of the trafficking groups. When investigators were asked to identify the geographic area that the trafficking group served, they usually gave general boundaries (e.g., the west side of city X, or Z county). On occasion, however, they described the territory of a highly localized trafficker and in this case they could provide the streets and block numbers within which the trafficker operated. Based on the reports of investigators, the traffickers do not appear to be major regional traffickers. Many trafficking groups might be characterized as large, drug-retailing groups that also engage in midlevel trafficking.

Once investigators estimated the market area served by a trafficking group, investigators were asked to estimate the proportion of the drugs consumed in that area. Here again, investigators gave very imprecise estimates that may overestimate the proportion of the market a group supplied. For example, two investigators estimated that the two groups they investigated had each supplied 25% or more of the drugs to the same high-volume drug-dealing area of a city. If we use the lower bound on these two estimates, then half of the drugs in this part of a city were supplied by these two groups. There was no apparent diminution of drug dealing in this area following the arrests of these traffickers, as one would expect if 50 percent or more of the supply was disrupted. Consequently, we must view these data as providing an extreme upper bound on the scale of operations of these groups.

Table 9 shows, reported in two ways, the estimated proportion of drugs supplied by investigated trafficking organizations. Originally, the categories for the proportion of the drug market supplied had a lower bound of under 10% (columns one and two). Two years later we found that most of the cases still fell into this category, so in 1997 we changed the question to get a more information on the lower end of the distribution of the data (columns three and four). Based on investigators' estimates, it is clear that the overwhelming majority of trafficking organizations have very small market shares for the areas they serve.

To learn more about the very few trafficking groups that served more than 10% of their market area, we examined the narrative por-

tion of the data collection instrument. Only seven sampled cases that fit this criteria. A description of the trafficking groups involved is shown in the appendix. No group served the entire W/B HIDTA region, though group 4, with around 50 people, operated throughout the United States and has contacts abroad. Interestingly, group 4 moves types of drugs that are not the highest level of priority for law enforcement. Thus, it may have grown so large not because of intimidation and corruption, but because law enforcement has not placed a high priority on the drugs it moves. Only group 7 served an entire city. This is the largest organization and it appears to use sophisticated communication technology as well as technology to thwart investigations. This comes closest to the kind of organization predicted by the concentrated industry hypothesis.

Table 9: Investigators' Estimates of Percent of Drugs Supplied to Traffickers' Supply Areas

| 1995 - 1996 % of Drugs Supplied | Proportion of Investigated Groups Supplying this % | 1997 % of Drugs Supplied | Proportion of Investigated Groups Supplying this % |
|---------------------------------------|---|--------------------------------|---|
| <10% | 96.2 | <2% | 66.2 |
| 10-39% | 1.7 | 2-9% | 8.6 |
| 40-59% | 0.5 | 10-24% | 2.6 |
| 60-90% | 0 | 25-49% | .7 |
| 90+% | 0 | >50% | .7 |
| Unknown | 1.7 | Unknown | 16.4 |
| Not Applicable | 0 | Not Applicable | 5.1 |
| | n=419 | | n=201 |

CONCLUSIONS AND IMPLICATIONS

These data suggest that the Washington/Baltimore region is supplied by a large number of free-lance traffickers, rather than by a few, large scale organizations. This fragmented trafficking industry is consistent with the limited empirical research on drug trafficking (Karchmer 1992; Reuter and Haaga, 1989; and Kleiman, 1987).

These findings also are consistent with those of Natarajan and Belanger (1998). Based on a much smaller sample ($n=39$) of federally prosecuted trafficking cases in New York, they conclude that trafficking organizations ranged in size but "(t)he small freelance groups were a little more likely to be involved in tasks higher up the distribution chain, whereas the larger organizations were somewhat more involved lower down. The largest "corporate" organizations were also generally involved in dealing at the retail level" (Natarajan and Belanger 1998, page 1019). Finally, our findings are also consistent with a wider body of criminological theory that suggests that most crime is easy to commit and does not require extensive learning or technology (Felson, 1998; Gottfredson and Hirschi, 1990).

When we look at the trafficking groups that are the most likely to be large-scale movers of drugs, we found only one (about 0.2% of the population of cases investigated in the three year period). Rather than having a few, large, well-hidden drug organizations supplying the Washington/Baltimore area, it seems more plausible that at any given time there could be drug organizations of a wide variety of sizes, although the vast majority of them are small. The large organizations do not dominate the market, but grow out of it. The larger they grow the more vulnerable to law enforcement they become, so they never get the opportunity to exert a dominate influence on the market.² The implication is that while one will occasionally find large, sophisticated, drug trafficking organization, eliminating it will do little to curb drug trafficking.

We must note that we have never heard a claim by law enforcement officials that they uncovered one or more organizations that supplied the bulk of the drugs to the region. In fact, when results like those shown here were presented to law enforcement officials, they neither suggested the trafficking industry had a few dominant players that we had overlooked, nor that such entities exist but had not been uncovered yet.

We must be careful with these conclusions. The data came from law enforcement officials and it might be that they were unable to detect and identify large trafficking organizations during the three years for which we have data. The large trafficking organizations predicted by the concentrated industry hypothesis may have successfully avoided detection by law enforcement, or the investigators of such groups failed to note the scale of their operations. These are possibilities which we cannot refute.

We do not believe that these explanations are valid, however. The law enforcement teams we examined were directed at large-scale

trafficking. The investigators and their supervisors appeared to enjoy talking about the seriousness of their targets. And given the opportunity, investigators and their supervisors would describe the largest and most serious traffickers with whom they had recent contact. Given the formal and informal pressure to find such groups, it would be rather surprising that, if large-scale trafficking existed, it could go undetected for long. If results like these continue to be forthcoming from annual surveys, the chances of failing to uncover large, drug-trafficking organizations will diminish.

A single study based on a sample with unknown representativeness of an unknown population is a thin reed upon which to hang policy recommendations. Our only defense is that policy in the area of drug-trafficking enforcement is generally supported by even less information collected in less rigorous ways. Clearly, efforts should be undertaken to examine other wholesale drug markets in other parts of the United States. We hypothesize that if evidence contradictory to the cottage industry hypothesis is to be found anywhere within the United States, it will be in areas with a great deal of drug importation. Further, any large organization found in importation areas will be either a part of an off-shore trafficking organization, or a domestic trafficking organization with close business links to off-shore organizations. We also hypothesize that the cottage industry hypothesis will find its greatest support in areas where importation is uncommon.

If the cottage industry hypothesis is consistently supported and the concentrated industry hypothesis is consistently rejected then continued investment in federally sponsored, covert drug investigations to suppress drug trafficking must be questioned. Some law enforcement pressure is probably required to keep large trafficking organizations from forming and becoming established. This would put a cap on the size of drug trafficking organizations. In fact, the fragmented nature of drug trafficking may be due to earlier law enforcement against larger organizations. As Moore (1977) has noted, the larger the illicit organization, the greater its vulnerability to penetration by law enforcement. If true, this would suggest an adaptive response by the drug trade to past law enforcement. But if the cottage industry hypothesis is valid, the current trafficking industry is too fragmented for this approach to drug control to make additional progress. Drug trafficking on the small scale may be too easy and too lucrative.

Once an individual has established contacts with people engaged in drug sales, it may not be difficult to find partners for trafficking. This small group will find few barriers to getting the technology nee-

essary for trafficking. Virtually all the technology required can be found in legitimate stores. Nor will these new entrepreneurs find it difficult to learn how to traffic drugs. The major barriers to entry into this market may be developing the contacts needed to acquire drugs in quantity and the necessary customers to buy the drugs. If law enforcement activities place a cap on the size and power of rival drug organizations, the field is left open to small groups.³ Dramatically reducing the flow of drugs brought into a region by such groups will be extremely difficult, and the cost will be extremely high.

Should large-scale, covert investigations of traffickers be abandoned? Some drug-trafficking enforcement will be required to keep large trafficking organizations from forming and dominating a market. It is not obvious what else can be done, however. The principal reason we have no obvious alternatives for controlling trafficking is that drug trafficking has been defined by law enforcement as a crime that can be addressed by enforcement. The combination of a settled strategy and some legitimate need for operational secrecy has meant that information on drug traffickers has been severely restricted. With little information available, it is difficult to find alternatives to an enforcement strategy.

If we had more information and details about how traffickers behaved, it is possible we could craft situational crime prevention measures that would be more effective. These measures will require far more information than we have presented here, and this information would have to come from a variety of sources, not just investigators.

We are led to our final implication. It appears that the limited information on drug trafficking available to criminologists also limits the effectiveness of drug-control strategies. Until antidrug units of local, state, and federal agencies open themselves up to research on this topic, they are unlikely to make much progress. If our conjectures are reasonable, however, once they do create more research opportunities, the most effective ways of preventing drug trafficking may turn out to have little to do with law enforcement.



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APPENDIX

Characteristics of Groups Most Likely To Be Part of a Concentrated Industry

| Group | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----------------|---------------------------------|---|--|--|--|--|---|
| Area | sections of City X | suburban county | suburban town | all over US | part of City Z (streets) | section of City X | city X |
| Drugs served | heroin | marijuana & crack | cocaine | marijuana & MDMA | crack | crack | heroin & firearms |
| Communications | clone phones | | clone phones | | secured cellular phone | | secure cellular phones |
| Organization | size unknown, shared leadership | 50-60 people (generalists) with a designated leader | 20 people (specialists) with a designated leader | 50 people (specialists) with a designated leader | 12 people (generalists) with a designated leader | 20 people (generalists) with a shared leadership | 100 people (specialized) with a designated leader |

| Group | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----------------|---|--|---|---|-----------------------------|--|---|
| Movement | transports Colombia via airlines & from NY via passenger rail | transport via car from California | transport via private mail | transport from Mexico & Netherlands via bus, train, car & commercial airlines | transported via car from NY | transport via car (hidden compartments), bus & train | transport via car (hidden compartments), bus & train |
| Environment | Sell drugs out of single family home | sell their drugs on the street corner | sell their drugs out of an apartment | sell drugs out of a single family home | unknown | sell drugs out of a bar/nightclub | sell drugs out of a single-family home |
| Transactions | heroin is of an above average purity (90%+) | sell marijuana in pounds and crack in ounces | kilograms | Marijuana in 20 lb. bricks | sell the crack by the ounce | | sell drugs by the kilogram (purity 90%+) |
| Security | restricted access with security cameras, scanners to pick up DEA communications | threats and firearms | varying communication methods, use an alarm | security cameras, use of threats | threats of retaliation | armed guards | known to carry out threats of murder, use scanners & equipment to detect body wires |
| Percent served | about 50% | 10% - 24% | 10% - 24% | 10% - 24% | about 50% | 10% - 24% | 25% - 49% |

NOTES

1. A clone phone is created when a person electronically intercepts the Electronic Serial Number (ESN) of a legitimate cellular telephone, and then reprograms a new or stolen cellular telephone with the intercepted ESN. The legitimate phone customer then gets billed for the calls made on the clone phone. This not only provides free phone calls to the user of the clone phones, but if the clone phone is used for trafficking, law enforcement agents have trouble identifying the fraudulent user. Further, clone phones make the analysis of phone records from wire taps and dial number recorders much more difficult.

2. This raises an interesting possibility that cannot be developed in this paper. It may be that the size of drug organizations follows a power-law function over a large range of sizes. This would imply that the process that generates small trafficking organizations is the same process that generates large organizations, and that one could gain as much information studying abundant small trafficking organizations as rare large ones (Bak, 1996).

3. Karchmer (1992) describes heroin trafficking in Baltimore in the late 1980s. Based on interviews of investigators and the examination of cases, he states that the city had been divided among a few kingpins who kept out competition and kept violence to a minimum. Successful law enforcement operations had decreased their control on the market with the result that new traffickers started moving into the city. In response, the remaining established traffickers hired "freelance assassins to kill them." (p. 12) This increased the vulnerability of these groups, and they eventually succumbed to further law enforcement effort. So law enforcement may have not only created an environment that makes small time trafficking possible; in the process it might also create situations that can increase the violence associated with drug trafficking.