CR-Sent
10-27-87

# ICPSR
## Inter-university Consortium for
## Political and Social Research

---

# Violence and Crime in Cross-National
# Perspective, 1900-1972

---

Dane Archer and Rosemary Gartner

ICPSR 8612

Violence & Crime in Cross-
National Perspective,
1900-1972

(ICPSR 8612)

Principal Investigator

Dane Archer

Rosemary Gartner

Inter-university Consortium for Political and Social Research
P.O. Box 1248
Ann Arbor, Michigan 48106

Acknowledgement of Assistance

All manuscripts utilizing data made available through the Consortium should acknowledge that fact as well as identify the original collector of the data. The ICPSR Council urges all users of the ICPSR Data facilities to follow some adaptation of this statement with the parentheses indicating items to be filled in appropriately or deleted by the individual user.

In order to provide funding agencies with essential information about the use of archival resources and to facilitate the exchange of information about ICPSR participants' research activities, each user of the ICPSR data facilities is expected to send two copies of each completed manuscript or thesis abstract to the Consortium. Please indicate in the cover letter which data were used.

Archer, Dane and Rosemary Gartner
    VIOLENCE & CRIME IN CROSS-NATIONAL PERSPECTIVE, 1900-1972 (ICPSR
8612)

SUMMARY:   The purpose of this data collection was to provide
comparative, cross-national, longitudinal data on rates of violent  and
non-violent crimes  for  every country in the world over a period of 72
years.  The study was designed to supply both comparative  breadth  and
historical depth.   Information  is  included on murder, rape, robbery,
assault, and thefts.  CLASS IV

UNIVERSE:  All countries in the world.
NOTE:  The machine-readable documentation includes two FORTRAN  command
files which  can  be  used in conjunction with the data files to output
crime rates  and  raw  crime  figures  for  each  country.   The  only
documentation provided  for  these  files  is  the  comment  statements
included in the files.

RESTRICTIONS:  Users are asked to send copies of articles based on  the
data to:  Dane Archer, Stevenson College, Univ.  of Calif., Santa Cruz,
CA 95064 (408) 429-2555 or (408) 426-1186

EXTENT OF COLLECTION:  2 data files + machine-readable documentation
DATA FORMAT:  Card Image

| PART 1:  Crime File | PART 2:  Eight Crime File |
|---|---|
| FILE STRUCTURE:  rectangular | FILE STRUCTURE:  rectangular |
| CASES:  4568 | CASES:  3520 |
| VARIABLES:  12 | VARIABLES:  11 |
| RECORD LENGTH:  80 | RECORD LENGTH:  80 |
| RECORDS PER CASE:  1 | RECORDS PER CASE:  1 |

RELATED PUBLICATIONS:
    Archer, Dane, and Rosemary  Gartner.   VIOLENCE  AND  CRIME  IN  A
CROSS-NATIONAL PERSPECTIVE.  New Haven:  Yale University Press, 1984

Comparative Crime Data File

| VARIABLE NAME | COLUMN LOCATION |
|---|---|
| Country Code | 1-3 |
| Year (eg. "62" for 1962) | 4-5 |
| Constant Value "1" (unused) | 6-7 |
| Number of Murders | 8-13 |
| Number of Manslaughters | 14-19 |
| Number of Homicides | 20-25 |
| Number of Rapes | 26-31 |
| Number of Assaults | 32-38 |
| Number of Robberies | 39-45 |
| Number of Thefts | 46-53 |
| Population (in thousands) | 54-59 |

====================================================================

| Missing Data Code | -1 |
|---|---|

| COUNTRIES | CODE |
|---|---|
| Aden | 56 |
| Argentina | 15 |
| Australia | 20 |
| Austria | 25 |
| Bahrain | 30 |
| Belgium | 35 |
| Bermuda | 40 |
| Bolivia | 45 |
| Botswana | 50 |
| Brunei | 55 |
| Bulgaria | 60 |
| Burma | 65 |
| Cameroon | 70 |
| Canada | 75 |
| Central African Republic | 80 |
| Chad | 90 |
| Chile | 95 |
| China | 100 |
| Columbia | 105 |
| Congo | 110 |
| Cuba | 115 |
| Cyprus | 120 |
| Dahomey | 125 |
| Denmark | 130 |
| Dominican Republic | 135 |
| Egypt | 140 |
| El Salvador | 145 |

| COUNTRIES | CODE |
|---|---|
| England and Wales | 150 |
| Ethiopia | 155 |
| Fiji | 160 |
| Finland | 165 |
| France | 170 |
| Germany | 175 |
| Gahana | 180 |
| Greece | 185 |
| Guam | 195 |
| Guyana | 190 |
| Hong Kong | 200 |
| Hungary | 205 |
| Iceland | 210 |
| India | 225 |
| Indonesia | 230 |
| Iran | 215 |
| Iraq | 220 |
| Ireland | 235 |
| Israel | 240 |
| Italy | 245 |
| Ivory Coast | 250 |
| Jamaica | 255 |
| Japan | 260 |
| Jordan | 265 |
| Kenya | 270 |
| Khmer Republic (Cambodia) | 275 |
| Korea | 280 |

| COUNTRIES | CODE |
|---|---|
| Kuwait | 285 |
| Laos | 290 |
| Lebanon | 295 |
| Libya | 300 |
| Luxemburg | 305 |
| Malagasy Republic | 310 |
| Malawi | 315 |
| Malaya | 320 |
| Mauritania | 325 |
| Mauritius | 330 |
| Mexico | 335 |
| Monaco | 340 |
| Morocco | 345 |
| Nepal | 350 |
| Netherlands | 355 |
| Netherlands Antilles | 360 |
| New Zealand | 365 |
| Nigeria | 370 |
| Northern Ireland | 375 |
| Norway | 380 |
| Pakistan | 385 |
| Panama | 390 |
| Peru | 395 |
| Phillipines | 400 |
| Poland | 405 |
| Portugal | 410 |
| Puerto Rico | 415 |

| COUNTRIES | CODE |
|---|---|
| Qatar | 417 |
| Rhodesia | 420 |
| Rumania | 425 |
| Scotland | 430 |
| Senegal | 435 |
| Sierra Leone | 440 |
| Singapore | 445 |
| Solomon Islands | 450 |
| South Africa | 455 |
| Spain | 460 |
| Sri Lanka | 85 |
| Sudan | 465 |
| Surinam | 470 |
| Swaziland | 475 |
| Sweden | 480 |
| Switzerland | 485 |
| Syria | 490 |
| Tangiers | 495 |
| Tanzania | 500 |
| Thailand | 505 |
| Trinidad | 510 |
| Tunisia | 515 |
| Turkey | 520 |
| Uganda | 525 |
| United States | 530 |
| Venezuela | 540 |
| Vietnam, South | 545 |

| COUNTRIES | CODE |
|---|---|
| West Indies (British) | 550 |
| Yugoslavia | 555 |
| Zambia | 560 |

| CITIES | CODE |
|---|---|
| Accra, Ghana | 595 |
| Amsterdam, Netherlands | 600 |
| Athens, Greece | 605 |
| Beirut, Lebanon | 610 |
| Belfast, Northern Ireland | 615 |
| Bombay, India | 620 |
| Brussels, Belgium | 625 |
| Calcutta, India | 635 |
| Caracas, Venezuela | 638 |
| Colombo City, Sri Lanka (Ceylon) | 630 |
| Doha City, Qatar | 640 |
| Dublin, Ireland | 645 |
| Freetown, Sierra | 648 |
| Georgetown, Guyana | 650 |
| Glasgow, Scotland | 655 |
| Helsinki, Finland | 660 |
| Istanbul, Turkey | 665 |
| Jerusalem, Isreal | 670 |
| Johannesburg, South Africa | 675 |
| Khartoum, Sudan | 680 |
| Kuwait City, Kuwait | 683 |
| Lagus City, Nigeria | 685 |
| Madrid, Spain | 690 |
| Manilla, Philippines | 700 |
| Mexico City, Mexico | 705 |
| Montevideo, Uruguay | 695 |
| Munich, Germany | 710 |

| CITIES | CODE |
| --- | --- |
| Nairobi City, Kenya | 715 |
| New York City, U.S.A. | 720 |
| Oslo, Norway | 725 |
| Panama City, Panama | 730 |
| Paris, France | 735 |
| Port of Spain, Trinidad and Tobago | 740 |
| Queson City, Philippines | 745 |
| Salisbury, Rhodesia | 750 |
| Seoul, Korea | 760 |
| Stockholm, Sweden | 763 |
| Sydney, Australia | 765 |
| Tananarive, Madagascar | 770 |
| Tokyo, Japan | 775 |
| Vienna, Austria | 780 |
| Warsaw, Poland | 783 |
| Wellington, New Zealand | 785 |
| Zurich, Switzerland | 790 |

# T W O

## The Comparative Crime Data File (CCDF): A History and Description

In assembling the Comparative Crime Data File, we sought to create an archive with both comparative breadth and historical depth. Although the CCDF eventually grew to include 110 national and 44 urban entries, with data for roughly 1900–70, we undertook the project with no idea that the archive would reach this size. Data collection occurred over approximately five years. We pursued several methods of obtaining information, particularly early in this period. While some methods proved generally more effective than others, certain approaches were appropriate for certain societies. Given the great variety of nations and cities for which we hoped to assemble data, it was perhaps inevitable that no single technique would prove adequate in all cases.

The principal sources from which the homicide data were collected were (1) correspondence with national and metropolitan government sources in virtually all nations in the world; (2) a painstaking search through annual statistical reports and other official documents of those nations which have (at least at some time) published annual crime data; and (3) secondary examination of the records kept by various national and international agencies.

Although all three methods generated entries for the CCDF, the first strategy was the most productive and also the most interesting. Our initial procedure was to contact the consulates and embassies that most nations maintain in the United States. Personnel in some of these offices were able to refer us to authorities or specific agencies in their home nations. When references of this kind were not obtainable, our next procedure was to send "blind" (i.e., not addressed to named individuals) letters to various ministries in each country. In general, we invented the names of specific government agencies (e.g., "the Department of Justice") without knowing whether they existed. Each letter explained that we were interested in studying changing levels of five specific offenses in several nations during the twentieth century. Our inquiry asked whether the recipient of the letter could provide or direct us to annual data on the offenses of homicide, assault, robbery, theft, and rape or other sex offenses between 1900 and 1970.

Our inquiry stressed that the offenses we listed might be American or Western categories and that their own records might well be organized under different headings. We emphasized that we were interested in seeing their recording categories in their original form. In addition to national data, the letter requested parallel data for a specific major city in the same country. The letter expressed our appreciation for any help the recipient could provide and offered to pay any photocopying costs incurred by our request.

In many cases, our initial inquiry produced a reply directing us to another agency; we then sent our request letter to the suggested source. In some cases, the initial letter failed to produce a response, even after several months. In these instances, we invented the name of a different agency and sent our request letter again. Because of this need for a second (and in many cases a third or fourth) letter, we sent out many successive waves of requests, totaling perhaps five hundred letters.[1] In most nations, the individuals we managed to contact were extremely cooperative and generous with their time, resources, and information. Many of them responded promptly with the information we had requested, and several sent more than we had asked for. Because our first contact rarely had information for both the nation and the large city, additional inquiries were usually necessary to obtain the urban data. In some cases, months passed without word, and then, unexpectedly, the information arrived. Agencies in a few nations placed us on the mailing list for their government's statistical annuals, and some of these publications continued to arrive years after our initial request for information.

Over a period of five years, the responses to our letters arrived from around the world in a seemingly limitless variety of shapes, sizes, languages, alphabets, letterheads, envelopes, and stamps. The data themselves took equally varied forms—booklets, penciled charts, entire volumes of national yearbooks, photocopies of published or unpublished lists, and massive typed or handwritten tables which unfolded like roadmaps. The variety reflected in the data was impressive, and the project quickly taught us how little we knew about political geography. We wrote to and received data from nations whose existence had been unknown to us prior to the project. In other cases, our ignorance about the situations of individual societies was underlined—when, for example, our correspondent referred to a set of data as for the "mainland" only. Without the aid of a political atlas, many of these comments would have been incomprehensible.

In some cases, the requested information arrived paired with a provocative national or political sentiment. For example, the Philippines Department of Justice letterhead read: "An orderly people make an enduring nation." Swaziland's envelope bore the legend: "Umhlaba

Uyimpilo Yetfhu—Wonge!" This was accompanied, fortunately, by the translation: "The soil is our greatest asset—help conserve it!" Many of the agencies responding to our inquiry furnished, in addition to the requested data, clarifications of their reporting procedures, informational pamphlets about their institutions and systems of justice, and various cautions about aspects of the data and their appropriate interpretation. Finally, almost all of our correspondents expressed great interest in our undertaking, and many asked to be informed of our results.

For many societies, there were indications that the information we received was not only unpublished but also untabulated prior to our request. The data we received from these societies were in the form of individually typed or even handwritten tables. Many correspondents were kind enough to construct their replies in English, and we began to appreciate just how difficult this must have been for some of them when we began receiving a flood of replies in a bewildering array of languages. In many of the letters we received, the only thing we could read was our own address at the top of the letter.

For the more frequently encountered languages, we were able to benefit from translations provided by helpful colleagues at the University of California. Less familiar languages posed greater problems; there were cases in which we could not recognize a single character in the entire correspondence. In these instances, we asked for and generally received assistance from appropriate embassy and consulate officials in the United States. Even after translation had been completed, some terminological problems remained. For example, it was often necessary to group the unique categories used by a nation under a more general rubric—for instance, a society might have as many as twelve distinct recording categories for homicides. Obviously, classifications of this kind can be difficult even when the literal meaning of a nation's recording categories has been translated.

Our primary goal, of course, was to assemble an orderly file of quantitative data on crime and violence to facilitate previously impossible comparative research. It is our expectation that much of the research which the CCDF makes possible will use the data in some form of aggregate analysis—that is, in a relatively dispassionate manner which emphasizes the data themselves more than the special characteristics of the historical period in which they were generated. This approach is, of course, an indispensable feature of most empirical research.

It seems vital to remember, however, that these comparative crime data were recorded across the moving history of changing societies. In some cases, this history spanned gradual changes in the political and

social conditions of a nation. In other cases, it encompassed transformations so acute that it seems arguable whether the same nation existed before and after. When these historical events have been extremely dramatic or abrupt, it seems appropriate to consider whether and how the relatively fragile process of producing social indicators like crime data has been perturbed.

The letters and information we received with the requested crime records were an unanticipated but fascinating dividend of the data collection process. These documents provide an intriguing window on the histories of individual nations. Our correspondents sometimes volunteered information and opinions about the ways in which various national crises and changes could have altered the data they sent us. Some of these comments about dramatic events were made in a manner which seemed, to us, curiously understated. For example, our correspondent in Brunei wrote that some gaps in that nation's data were "due to various factors including a rebellion in 1962." Our correspondent in Denmark wrote, almost as an aside, a single sentence about what must have been one of the most desperate periods in his nation's long history: "We wish to add that the Danish police statistics date back to 1921 but are missing as far as the years 1944 and 1945, 'the policeless years,' are concerned." Similarly, our correspondent from West Germany noted that although other types of crime statistics had been maintained for an extended period, the police began making their own record of crimes for the first time under the German Reich in 1936.

Correspondents in other societies also commented on long-term changes which had affected or even transformed their nations. Some of this information was indispensable to understanding the data they sent us. Our Hungarian correspondent, for example, drew our attention to the Treaty of Trianon, which in 1920 stripped his nation of two-thirds of its area and population. Officials in other nations commented on the impact of chronic political conflict on records of crime. For example, the commander of Israel's Criminal Investigation Department commented on the periodic wars and guerrilla actions that his nation had experienced: "Even if a record had been kept of all incidents of murder, manslaughter, assault, robbery, etc., during the relevant [wartime] period, it is still extremely doubtful whether it would be possible to differentiate between incidents of a political or criminal motivation." Similarly, the crime data from Belfast and Northern Ireland arrived with an "x" noted before several years in the table and the following legend: "An 'x' denotes years in which subversive elements were to the fore in the Province."

The comments of a few correspondents also revealed, perhaps un-

wittingly, the potential interplay between political changes and a nation's recorded rates of crime. In one Asian nation, for example, our correspondent commented that his nation had a "stormy history full of ups and downs" and gave the following account of its recent experience:

> In our nation, violence is apt to be exercised by groups or with the back-up of some groups. From 1968 to 1970, prosecution intensified control of these villain groups and tried to reform them by organizing the national land construction corps to work on the irrigation and reclamation projects. However, these projects could not last so long because they were financed by the government. New minor gangsters sprang up like mushrooms both in the capital and in the countryside.

The case of another nation, whose civil liberties practices are a matter of current debate, provides a more chilling illustration of the ways in which crime data can sometimes be brazenly conscripted to serve political ends.[2] Our correspondent commented on recent trends in his nation's crime rates, asserting—without any apparent foundation in the data he himself sent us—that these rates had recently returned to the level of the 1950s after a long and steady increase. It is his analysis of this alleged change, however, that is of greatest interest:

> This drastic reduction in the crime volume is due to various improvements in police service instituted by our government to improve peace and order which is one of the notable achievements in the new order in our country that have helped evolve a new concept in police work since the imposition of martial law in [date]. As a result, other syndicated crimes like smuggling, counterfeiting, and trafficking in illicit drugs have also been greatly reduced not only in [the major city] but throughout [the nation].

A European correspondent also commented on his nation's recent trends in various offenses and loyally attributed what he saw as improvements to the successes of the current regime. These three correspondents were the only ones, out of all those we contacted, who attempted to extract partisan political meanings from the data they sent us.

It is possible, of course, that many other nations also try to use crime rate fluctuations for domestic political purposes—to use "good" trends to justify the current administration or "bad" trends to provide a mandate for the next. Our work does not indicate how frequently crime data are politicized; we do know that letters from only three of our correspondents openly reflected this tendency. Naturally, to the degree that the data in a given society have direct political consequences, researchers must be concerned about possible pressures and temptations to create fraudulent records. This is true of any potentially political social indicator—housing conditions, infant mortality, life expectancy, median income, and so forth—and is not unique to crime data.

In summary, almost all the agencies and officials who responded to our request did so generously. Indeed, since the only reward for providing information was the altruistic satisfaction one might conceivably feel at assisting the halting progress of knowledge, the spirited cooperation we received was particularly impressive. Even when a correspondent reported that he did not possess the requested data, he generally expressed interest in our project and tried to suggest alternate sources.

In a project of this scale, some exceptions to this general pattern of remarkable cooperation were perhaps inevitable. In the case of a small number of countries, none of our letters was ever returned or answered, even after repeated requests. These nations, unfortunately, included the U.S.S.R. and several other Eastern European societies. Other nations usually thought of as Soviet bloc states—such as Hungary and Poland—readily provided data in response to our request. All our letters to the People's Republic of China were returned unopened, although various postmarks indicated that the letters had in fact reached Peking.

There were also a number of curious responses. In a few nations, for example, our first correspondents asserted that the data we requested had never been collected or had been lost—only to have other agencies in the same society send us these very data in response to a follow-up letter. In one industrialized society, this contradiction occurred between two agencies located in the same city. In these cases, it was only our persistence in sending additional letters to new addresses that secured the data for these nations.

We interpret these cases as additional evidence that, in some nations, historical crime records have not been the sole responsibility of any single agency. This kind of administrative diffusion poses the obvious danger that irreplaceable data can be lost—indeed, we assume that this has already happened for some of the nations missing from the CCDF. The obvious fragility of historical records of this kind seemed to us to lend added urgency to our efforts at collection and preservation.

As we have noted, direct correspondence with multiple agencies in other countries was by far the most successful of the various methods we used in assembling the CCDF. Correspondence produced data series which were longer, more complete, and more annotated than the series obtained in any other way. However, we also obtained information for some nations in two other ways.

One of these involved perusing hundreds of national statistical annuals. In general, these were of limited usefulness. Many nations do not include crime data in their statistical publications—although information on the nation's annual output of "pork bellies" or any other monetized commodity is abundantly available. This selective accounting may say something about the aspects of national life which individual societies

regard as worth recording. Statistical annuals are problematic for technical reasons as well. They tend, quite reasonably, to be printed exclusively in the nation's primary language, and they also present data without explanation or annotation. This makes it difficult to know which offenses are classified under various categories and also whether changes in law or recording practices have occurred. Despite these obstacles, we did obtain data for quite a number of societies from statistical annuals.

The third and final method we used was by far the least satisfactory. The International Criminal Police Organization (Interpol) maintains some crime records on member nations, and we examined all the annual volumes it had published through 1970. The most glaring disadvantage of this source for our purposes is that Interpol began assembling and publishing crime data only in 1953—and this makes the analysis of long-term trends impossible using these data. In addition, Interpol records begin with only 40 nations and do not report separate data for cities. Despite these problems, we included these data in the CCDF when all other methods failed to provide alternative records.

There are several other Interpol practices which further reduce the usefulness of its data, and these should be kept in mind in any analysis relying on Interpol statistics. For one thing, since Interpol depends on annual submissions of data by member nations, its records are frequently discontinuous. Interpol records are also virtually unannotated, leaving the reader completely uninformed about national changes in practice, law, reporting, or definition. Interpol also reports a summary index of the "total number of offenses." This index is apparently modeled on the kind of aggregate index favored by the U.S. Federal Bureau of Investigation's *Uniform Crime Reports*; this index sums across all offenses and is therefore analytically meaningless.

The most serious problem with Interpol data, in our view, is both simple and insurmountable. The data are collected using a standardized form of Interpol's own invention. This form includes six offense categories intended to "cover certain broad categories of ordinary law crimes which are recognized and punished in the criminal laws of almost all countries."[3] These are murder, sex offenses, larceny, fraud, counterfeit currency offenses, and drug offenses. However, the scope of these categories appears to have changed slightly even during the short period in which Interpol has collected data. The murder category excludes "accidental manslaughter" in 1953, but by 1969 it excludes all "manslaughter." In addition, the adjective "illicit" was added to the drug offense description sometime between 1953 and 1969.

The use of a rigid, inflexible set of recording categories seems to us highly problematic because these offense types are rather arbitrary impositions on Interpol's member nations. These allegedly universal cat-

egories seem certain to obscure each nation's actual experience of crime and violence. Interpol deliberately redefines the "native" terms, categories, and classifications used by individual nations. For example, the 1969–70 volume notes:

> The General Secretariat simply reproduces the information given on [the standard Interpol] forms from each country. It is not possible to extract data from official statistics compiled by countries on the basis of criteria other than those of the I.C.P.O.-Interpol international form. The information contained in the report is unsophisticated but uniform.

The motive behind Interpol's interest in uniformity is understandable but, we feel, ill conceived. The probable goal of uniform categories was to facilitate direct cross-sectional comparisons—for example, does nation A have more of a specific crime than nation B? The problem with this approach is that direct comparisons of this kind may be justified for the offense of homicide but are almost certainly unwarranted in the case of other offenses (this issue is discussed in detail in the next chapter).

Even if these crude comparisons were Interpol's goal, its own instructions to member nations seem more likely to produce erratic changes than uniform reporting. As just one example, Interpol's many instructions to member nations include the following (emphasis added): "If a case includes several offenses which are *not directly connected with one another*, each offense should be counted separately; if the offenses are *directly related*, only the most serious one should be counted." Since these distinctions are surely a matter of some judgment, they introduce a new source of systematic error—different nations seem certain to implement this and other Interpol directives differently.

A simpler and much superior procedure, in our opinion, would be to record "native" categories as they occur. This is in general the method we have followed in assembling our own Comparative Crime Data File. Instead of insisting on its own set of invariant categories, Interpol could have collated crime records exactly as the reporting nations recorded them, along with any necessary details on each nation's definitions and changes in law and practice. This would have minimized the errors which are inevitably produced when external categories are imposed on a nation's necessarily idiosyncratic experience.

This approach also seems more appropriate scientifically since, as discussed in the next chapter, longitudinal analyses within nations are more valid than the kinds of direct cross-sectional comparisons for which Interpol data have typically been used. For longitudinal analyses, the most important quality of a data set is the consistency with which it has been generated over time—and Interpol's arbitrary modifications of each nation's data seem certain to have reduced this consistency in unknown

ways. Finally, it is also surprising that *none* of the international agencies we contacted either referred us to Interpol's publications or acknowledged their existence. This omission seems especially striking since, presumably, Interpol must interact with these same international agencies to obtain the records it publishes.

Having indicated the ways in which the data were collected, it is also appropriate to note some of the data collection strategies that proved fruitless. For one thing, some international agencies and institutions which might be expected to record and furnish crime data have not done so. For example, the United Nations publishes an impressive quantity of social indicators which enable a researcher to study a wide range of national characteristics, from the number of physicians per 100,000 population to the number of radios. The United Nations does not, however, furnish any detailed, longitudinal data on crime rates, although it once made an effort in this direction. For example, in the late 1940s, the United Nations did report an index of the number of offenses known to the police for a small number of member nations. This index did not refer to specific types of crimes and was only a summary of "major" and "minor" offenses. Various U.N. publications also reported juvenile court conviction data intermittently during the period 1946–56.

In general, however, data on crime and violence have been omitted from the United Nations' published interest in its member nations. This is somewhat surprising in view of the exhaustive detail which U.N. publications present for other indicators of far less apparent significance. There are indirect indications, however, that the U.N. does not publish crime data at least in part because it regards these data as potentially embarrassing to member nations—perhaps because the publication of comparative data would expose those nations with unusually high rates of crime and violence.

This interpretation was given additional credibility by the United Nations' curious and seemingly contradictory responses to our inquiries about whether it maintained crime data. Our first inquiry prompted a response from the assistant director of the "Crime Prevention and Criminal Justice Section," which said simply, "I am afraid that we are not in a position to provide you with the material you require." Since we assumed that this was a reference to the time and effort involved, we offered to go to New York to examine the records ourselves. We also offered to reciprocate by providing the United Nations with the considerable archive of data we had collected on our own. The reply we received informed us that "any information available here is for member states." We wrote again asking whether or not the United Nations in fact had the data we were seeking and, if so, whether these data were considered classified information. In reply, we received the following

single sentence: "The answer to your questions is that information here is not available to the public or to individual researchers." This curious and rather secretive episode lent support to our belief that the U.N. does not publish crime data because they are regarded as politically sensitive. At any rate, the United Nations' secrecy was ultimately unimportant since our own methods of data collection proved successful.

A number of scholarly collections of "world indicators" have also omitted data on crime and violence. The two best-known collections of these indicators are the works of the World Data Analysis Program at Yale University (Russett, Alker, Deutsch, and Lasswell, 1964; Taylor and Hudson, 1972). Neither of these handbooks of social indicators has any information on crime. The omission of crime data in these social indicator volumes is perhaps understandable since both works depend heavily on U.N. publications. In any case, these two handbooks of world social indicators are only cross-sectional, so that longitudinal research designs are impossible with these data. Even if it is unpreventable, the absence of data on crime and violence from social indicator collections remains somewhat ironic, as Jouvenal (1966) observed:

> The indisputable pioneer of social indicators is Quetelet. A large part of his work deals with the frequency of crimes of violence which he tried to correlate with various social characteristics. It is strange that [the authors of the social indicator volumes] who pay homage to Quetelet do not give us this measurement which he considered so important.

In summary, international agencies and previous scholarly efforts have failed to provide historical records on the rates of crime for a large sample of societies. The uncharted character of international crime rates made our own program of research seem well worth the effort required.

## PREPARING THE CCDF

The finished array of data in the completed Comparative Crime Data File exhibits an orderliness which the original records obviously did not possess. Since the information arrived in a great variety of forms, it was necessary for us to make a series of procedural decisions before entering each nation's data set in the archive. In all these decisions, our general goal was to understand and, as much as possible, preserve the unique or "native" meaning the data sets carried within the society in which they were generated. We felt that this approach would minimize the risk of arbitrary interference with the data, and we wanted to avoid imposing a specific viewpoint, methodological fashion, or perspective. At the same time, we tried to be zealous about detecting any potential problems with each data set. Our approach, in short, was to try to maximize the external

intelligibility of each nation's data without compromising their original meaning.

Since many data sets arrived in need of an English translation, this was our first priority. In many cases, idiosyncratic terminology was a problem—and this was generally unaffected by translation. We ran across a great many terms which were completely mysterious to us. In these cases, we wrote to our international correspondents asking for clarification. The distinction between problems of translation and those posed by obscure terms can be illustrated with the specific cases of Hungary and India. Language, not terminology, was the problem in the Hungarian case, while terminology, not language, was the problem in the Indian data. The Hungarian information arrived in six large (11" × 16") hand-typed tables accompanied by a four-page letter. Not one word was in English, but, with the aid of a native speaker, we learned the difference between *emberoles* (murder) and *testi sertes* (assault).

The Indian data, by contrast, arrived in English. There were a number of terms, however, which were both unknown to us and unexplained. For example, all the offenses were listed in terms of the "volume of crime per one *lakh* of population," and listed next to robbery was the crime of *dacoity*. In search of an explanation, we wrote to the director of the Bureau of Police Research and Development in India, who informed us that a lakh was equal to 100,000 people. He quoted the definiton of dacoity from the Indian Penal Code:

> When five or more persons conjointly commit or attempt to commit a robbery, or where the whole number of persons conjointly committing or attempting to commit a robbery, and persons present and aiding such commission or attempt, amount to five or more, every person so committing, attempting or aiding, is said to commit "dacoity."

Translation and repeated correspondence were, therefore, the tools with which we tried to understand the internal meaning of the data sets. Although preserving the original qualities of the national data sets was our guiding principle, preparing these data for analysis made it necessary to establish and follow a series of conventions to maximize the validity and usefulness of this diverse archive. These conventions were as follows:

### 1. Offense Categories

National data were recorded in their original offense categories. For this purpose, we established three distinct categories of homicide data: murder, manslaughter, and homicide. Each nation's data were tabled under the label with which they arrived. Some nations record data in more than one of these categories, and other nations record only a single combined category such as "murder and manslaughter." A few nations

recorded one series (e.g., "murder") only until a given year, and then a different series (e.g., "homicide") after that time. In all cases, we constructed footnotes to indicate our best understanding of the exact nature of each nation's indicators.

### 2. Multiple Indicators

In some cases, more than a single indicator was identified for the same offense for the same period—for instance, homicide "offenses known" and also homicide "convictions." Parallel indicators of this kind were sometimes received from relatively independent sources, such as a Bureau of Police Statistics and a Department of Justice. The three distinct homicide categories in the CCDF made it possible for us to include more than one homicide series. We recorded these indicators in separate categories even though the same case could conceivably be present in both series—as an offense known and, later, as a conviction. The existence of these potentially redundant homicide series made it possible for us to address a classic methodological question about the reliability and validity of crime indicators, and this analysis is described in the next chapter. In cases where multiple indicators were available for the same offense, we again used footnotes to indicate the precise nature of each indicator.

### 3. Unique Indicators

In some cases, the original category labels used by individual nations were not identical to any of the general CCDF categories. In these cases, we used the closest equivalent and recorded the original offense name in a footnote. For example, Scotland's "culpable homicide" was tabled under homicide; Caracas's undifferentiated "violent crimes" was listed in place of homicide; and India's "dacoity" was included with conventional robberies.

### 4. Aggregate Indicators

In a few cases, space considerations made it necessary to collapse some of the detailed distinctions preserved in the original data. In these cases, we tabled the resulting aggregate under a single CCDF category. In the case of France, for example, we combined *meurtre, assassinat, parricide,* and *empoisonnement* into the single offense category of murder. Aggregations of this kind were, again, explained in footnotes.

### 5. Raw and Rate Data

We decided to present data on both the raw number of offenses *and* the offense rate per 100,000 population. For any systematic analysis, of course, data in raw form are useless, and virtually all the research re-

ported in this volume is based on rates. In some societies, however, a change as small as a single offense can produce a misleadingly dramatic change in the offense rate. In New Zealand, for example, the homicide rate doubled from 1946 to 1947—but the raw number of homicides increased from only two to four! We decided to present both raw and rate data in the CCDF to provide the kind of context and perspective that may be invisible with rate data alone.

## 6. National Populations

The data from some nations arrived in both raw and rate form. For many societies, however, we received only raw data. In these cases, it was necessary to obtain annual data on the population of these nations. We did this by consulting a variety of secondary statistical publications, including the *U.N. Demographic Yearbook,* using these population figures to generate the offense rates per 100,000 persons.

Even when a nation's data were received in both raw and rate form, we compared the same secondary population sources to the population figures the nations themselves had used in their own rate calculations. When differences were found, we preferred the secondary data and used them to recalculate the rates the nations had reported. The rationale for this preference was simple: the calculation of rates in non-census years requires the use of population estimates based only on the single most recent census, while retrospective population series are based on interpolations between two known census figures. For this reason, we believe that we have used the best population estimates available. Since the CCDF presents both raw and rate data, however, future users of the file will be able to recalculate a nation's rates using any population data the researcher prefers.

## 7. Measure Changes

For each nation and city in the CCDF, we sought to determine whether the series contained any discontinuities which could not meaningfully be crossed. This was of obvious importance, since certain types of changes would render the before-and-after data incomparable. This could present major problems for longitudinal designs.[4] It should be mentioned that only the data from some nations in the CCDF have problematic change points of this kind. Some of these changes, ironically, were produced when nations improved their statistical practices. The most frequent improvement of this kind involved a nation's decision to report the number of "offenses known" rather than another indicator from later in the "career" of an offense—for instance, arrests, indictments, convictions, incarcerations, or even prison populations.

The number of offenses known has been regarded as the optimal indicator for several decades although, as will be seen in the next chapter,

we have discovered that several other indicators are equally valid indices of offense trends. At different points in this century, however, a number of nations have discarded a less optimal indicator in favor of the number of offenses known. Although these changes were obviously well intended, they have sometimes done a disservice to researchers since some nations have abandoned their old indicator entirely instead of recording both the old and the new together.

The single most common indicator change in the CCDF has been from data on convictions to statistics on the number of offenses known. Finland made this change in 1927, Indonesia in 1929, and Australia as late as 1963. The effect of these measure changes on a nation's data is, not surprisingly, dramatic. Since the number of convictions is generally no more than a fraction of the number of known offenses, this change in indicators produces an enormous paper "increase" in the data—although this increase is of course an artifact. For example, after Australia changed from convictions to offenses known, in 1963, the homicide data almost tripled and the assault data increased more than tenfold. Most of our correspondents in individual nations were quick to draw our attention to these indicator changes when they had occurred.

Other measure changes were more subtle. For example, our Hungarian correspondent informed us that his nation began including cases of intent to commit murder in its murder data after 1962. We felt it was imperative to include cautions about all such measure changes, whether or not they appeared to have any discernible effect on the series. In Hungary, for example, no effect is apparent. In the case of all measure changes, then, we have tried to alert potential users of the CCDF to the danger of crossing—at least unwittingly—these change points. In the CCDF data set, all measure changes are explained in the data for each nation or city.

Finally, some data sets show interruptions because of wars, coups d'état, national emergencies, or bureaucratic lapses. When these interruptions produce a gap in the data for a particular nation, the effect is to produce more than one series of data for a given offense.

## 8. Political Changes

A few of our correspondents drew our attention to political changes which had altered the borders and populations of their nations. These changes reflect history and the vagaries of national fortunes. For example, the CCDF contains data for "Germany" from 1900 to 1930, but only data for West Germany after 1953. Similar political changes are reflected in the offense data of a few other nations: the partition of Hungary in 1920, the carving of Northern Ireland out of a formerly undivided state in the same year, and so on.

The net effect of changes of this kind is to create more than one

independent series within a single entry in the CCDF. For example, the file contains a series for an undivided Ireland from 1900 to 1912 and then, after an interruption, data for only the smaller Republic of Ireland beginning in 1923. A separate listing of data for Northern Ireland begins in 1922. Political changes of this nature are also explained in footnotes in the CCDF.

## 9. Data Quality

In any undertaking of this scale, when the original statistics are generated by hundreds of different agencies around the world, it seems necessary to assume that the quality of the data is variable. Because the issue of data quality in crime indicators is rather complex, a detailed discussion of these issues is presented in the next chapter rather than here. Since these concerns did affect the way in which we assembled the CCDF, however, their impact on our procedures deserves a brief explanation.

Some of these issues reflect differences among various offenses. As discussed in the next chapter, we restricted most of our attention to homicide because there is evidence that homicide data are more valid than data on other offenses. This difference explains our decision to record up to three different indicators of homicide offenses but only a single indicator of each other offense.

Other concerns about data quality refer to variation across different indicators of the same offense. As noted earlier, the indicator of offenses known has been preferred in the past over data on arrests, convictions, sentencings, or prison populations. It should again be emphasized that this classic concern about differences among indicators appears to be much less important for longitudinal analyses. The CCDF does contain a fairly wide range of indicator types. In the "C" section alone, Cameroon records "number of offenses reported," Canada records "convictions," and Colombia records "number arrested." Because of this diversity, the entries in the CCDF label the specific indicators which individual nations and cities have reported. This information is potentially useful for researchers who decide to limit their analyses to only those cases with the offenses known indicator, on the assumption that this restriction will maximize the validity of a given analysis.

The indicator label in the CCDF files also makes it possible for a researcher to test a hypothesis using progressive "waves" of data—that is, first using nations with the "best" indicator, then using nations with other indicators. A data quality control procedure of this kind allows a researcher to learn what effect, if any, data presumed to differ in quality have upon the conclusion one would draw from a given analysis.[5] This procedure is ideally suited to cross-national research with large numbers of cases. In addition, data quality control is easily incorporated into most

research designs and can greatly increase rigor and precision. The usefulness of data quality control for the CCDF is illustrated in chapter 4, on the effects of war. In summary, since indicator quality is a recurring concern in cross-national research, each entry in the CCDF carries an indicator label. Individual researchers can use this label in sampling and research designs of their choice.

## 10. National Qualifications

As noted earlier, a number of our correspondents sent us certain cautions along with their nations' data. Some of these referred to specific gaps in the crime data, unusual time periods, or even a specific year. We recorded these qualifications in footnotes in the CCDF. In addition, we received cautions of a more general nature from a few correspondents. For example, some of them appeared to be concerned, rightfully, about the appropriateness of direct international comparisons of the absolute "amount" of a given crime. Thus, our New Zealand correspondent asked whether national differences in crime definition and reporting made exact international comparisons possible. These national differences are indeed problematic in direct cross-sectional comparisons, but they are controlled for in the longitudinal designs which constitute the largest part of our work.

Similarly, our correspondent in Scotland felt confident that his nation's data for both murder and culpable homicide were solidly comparable across the entire period from 1900 to 1973, but he wondered whether less serious offenses had been affected over this long period as much by variations in recording practices as by variations in the actual incidence of crime. We had also anticipated this concern, and it is reflected in our decision to focus primarily on homicide rather than less grievous offenses. In most cases, then, we had anticipated these general concerns in our choice of research designs.

Even nonhomicide offenses can be useful in a variety of longitudinal designs. For example, one could use the data on rape rates to identify the years in which *reported* rape appears to have increased in each of a sample of nations. This increase can be of considerable interest—perhaps in a study of the ways in which increased societal concern or police cooperation can affect offense reporting, even if one flatly assumes that no actual increase in the "real" rate has occurred. One might study changes in the willingness to report rape as an index of emergent concern about women's rights, as a measure of the effectiveness of reforms in police practice and jurisprudence, or as a reflection of other social changes. In addition, changes in the reported incidence of rape might occur in an interesting temporal order in various societies.

An understanding of these and other methodological issues is ob-

viously of pivotal importance to an informed use of the data in the CCDF. For this reason, any researcher interested in using this archive to answer a question of his or her own is strongly urged to become familiar with the discussion and caveats presented in the following chapter.

## THE CCDF: AN OVERVIEW

Once the data for a nation or city had been prepared for analysis according to the ten conventions listed above, we used them to construct an entry for the CCDF. These entries were computerized and the complete file was printed in the format shown in the last part of this volume. A total of 110 nations and 44 international cities are listed in the archive. An overview of the contents of the CCDF is given in tables just prior to the entries themselves. This information can be used to select individual cases according to the needs of a given researcher. The tables indicate the total number of years for each entry in the CCDF and the approximate time period for each. Entries marked by one, two, or three asterisks contain a minimum of ten, twenty, or thirty years of continuous coverage independent of measure changes and gaps. Abbreviations are used to show which specific offenses are included for each nation and city.

## NOTES

1. Since we asked the recipients to go to considerable lengths on our behalf, we felt that an individually typed letter would be more effective than a form solicitation, despite the large number of requests involved. Our solution to this problem was to use word processing. A general form of our request letter (in English or Spanish) was programmed, and each individual request letter was generated by adding the name of an individual agency, city, and nation. The resulting letters were indistinguishable from a manually typed letter.
2. In this and the preceding example, we have not identified the nation so as to protect our correspondent from possible reprisals. In at least one case, our correspondent wrote that he had tried for over a month to obtain his Director's approval to send the letter to us—without success. Despite this, our correspondent decided on his own to send us the letter and data.
3. *International Crime Statistics* (Saint-Cloud, France: Interpol, 1969–70), p. ix.
4. Even in the case of shifts and discontinuities, approximate longitudinal analyses are in some cases possible. If two series overlap for at least some period, it is possible to test for a relationship between the two series. If a strong relationship exists, the researcher can generate estimated values for the interrupted series. Even when the change is from one homicide indicator (convictions) to another (offenses known), we have found that the two indicators are highly colinear, as discussed in the next chapter. In theory, this would allow a researcher to project estimates for the missing values in either series when one has terminated. This kind of analysis is common in econometrics but until recently has been infrequently used in the other social sciences.
5. Data quality control was pioneered by Raoul Naroll. The concept and procedure are described in his book *Data Quality Control: A New Research Technique* (New York: Free Press, 1962) and in later work (Naroll, Michik, and Naroll, 1980).

# T H R E E

# Problems and Prospects in Comparative Crime Research

## INTRODUCTION TO THE ISSUES

Over the past two decades, researchers have raised important questions about possible sources of inaccuracy, incompleteness, and bias in official crime statistics. Although these critics have focused on a wide range of potential problems, the net effect of this close scrutiny has been to impugn the validity and usefulness of these records (Kitsuse and Cicourel, 1963; Wolfgang, 1963; Nettler, 1974; and Skogan, 1977). In the case of American statistics, the most frequent criticism is that these records reflect only a proportion of all crime because they fail to include unreported offenses. This problem has been given various names but is most frequently called *underreporting*.

While most research on underreporting has examined American crime data, the issue is presumably generic to official crime statistics from any society. The specter of missing or inaccurate data is of obvious significance for a data archive such as the CCDF. If massive underreporting is a factor in international crime statistics, the resulting ambiguities could be fatal to certain types of comparisons. Underreporting could hopelessly confound "real" changes in crime with "paper" changes—meaningless differences reflecting only variation or changes in reporting practices. Because this potential artifact clearly threatens some uses of international crime statistics, it is important to understand the precise nature and implications of underreporting.

A second problem concerns definitions and procedures. In the case of international statistics, it is said that cross-national comparisons are not tenable because different societies often use different *indicators* of crime—for example, offenses known, arrests, court cases, convictions, incarcerations, or even prison populations. If two societies maintain different indicators of the same offense, it is obvious that direct comparisons of the volume of the offense are problematic or impossible. While there may be other questions about crime data quality, the problems of underreporting and different indicators have caused the greatest methodological concern.

## IMPLICATIONS FOR COMPARATIVE RESEARCH

In this chapter, an effort is made to assess the implications for comparative research of these two sources of potential invalidity or incomparability in official crime statistics. Our central goal is to identify (1) what kinds of research designs are jeopardized or even invalidated by these data quality problems, and (2) what research designs are valid despite them. By means of this analysis, we hope to provide potential comparative researchers with a highly practical guide to the relative validity of a range of research designs. Our basic theoretical approach is to treat various methodological concerns as hypotheses and subject them to empirical test or, if an empirical test is not possible, to try to identify what design types are most immune to the error and invalidity which would be produced *if* a critical hypothesis of this kind was, in fact, correct.

In our view, a sophisticated approach requires that one eschew *both* a blanket indictment of the usefulness of crime statistics and a naïve or unthinking faith in their direct interpretability. Both of these approaches, we believe, are equally reckless and unwarranted. In addition, as this chapter makes clear, neither approach is supported by the existing evidence. Our intent is to try to identify the precise implications of several potential problems, and our approach is, wherever possible, empirical. We assume that official crime statistics may well contain sources of error but, in addition, we assume that these types of error pose a unique and variable jeopardy for different research designs.

For these reasons, it is our view that one of the best models for these methodological issues is a typology which examines the unique impact each potential problem poses for different research designs. Recent evidence on the problems of underreporting and nonstandardized indicators suggests that the degree to which they are problematic is a function of the specific comparisons one wishes to make. These two problems will be considered separately. Some recent evidence, particularly on the problem of underreporting, uses surveys of crime victims to generate unofficial estimates of crime rates. These "victimization" crime rates are then compared with official police statistics to estimate the "hidden figure" of unreported crime. Other research, particularly on the problem of different indicators, is now possible for the first time because of the CCDF. On the basis of this analysis, four different comparative research designs are compared in a summary typology which appraises the vulnerability of each design to these two data quality problems.

## PROBLEM I: UNDERREPORTING

Few criticisms of official crime statistics have received more attention than underreporting, and few have been seen as potentially more im-

portant. The interest in this issue is scarcely surprising. It is difficult to think of any area of research on crime and violence—with the possible exception of ethnographic, descriptive, or case study approaches—in which the numerical *incidence* of crime is not of central concern. Studies of trends in crime, ecological differences, offender and victim populations, and virtually all other topics in the study of crime and violence depend at least in part on knowledge of the frequency and extent of the offense under study. The keen interest with which underreporting research has been greeted is due to the fact that measurement of the incidence of offenses is indispensable to empirical research on crime and violence.

Perhaps because empirical, quantitative research on crime statistics has been pursued with more enthusiasm in the United States than in many other nations, research on underreporting has centered upon American crime data. In addition, the crime records of other societies may be of higher quality than American data and, as a consequence, underreporting may be more of a problem in American crime statistics than in international data. This argument has been made by several scholars (e.g., Mulvihill and Tumin, 1969; Skogan, 1976) and also by a U.S. Presidential Task Force which concluded:

> The United States is today, in the era of the high speed computer, trying to keep track of crime and criminals with a system that was less than adequate in the days of the horse and buggy. . . . In some respects the present system is not as good as that used in some European countries 100 years ago. *(Task Force Report: Crime and Its Impact—An Assessment,* President's Commission on Law Enforcement and the Administration of Justice, 1967: 123)

The principal reason for this criticism, at least in the United States, is that for approximately a half century this nation's official crime statistics have been drawn from police records, reflecting the number of complaints to and arrests made by individual police departments. The data from these departments are then forwarded to the Federal Bureau of Investigation which aggregates the data and publishes them as the *Uniform Crime Reports* (UCR). It may be that every system of recording crime statistics has a weakness, but the weakness of this particular system is particularly disquieting. Unless one is willing to assume that citizens are never reluctant or unmotivated to report crimes, it seems clear that these official police statistics are diminished by underreporting. As a consequence, it seems reasonable to be concerned that what appear to be characteristics of crime (e.g., an increase in rape) are in fact characteristics of underreporting (e.g., an increase in citizen willingness to report rape).

Underreporting has drawn attention to the "dark" or "hidden" figure of crime—that is, the unknown volume of offenses which never appear

in official American crime statistics. The sources and dangers of underreporting have been addressed by Wolfgang (1963) and Skogan (1976, 1977, and 1981) among other scholars. The hidden figure of crime is in many ways an empirical question, and the past fifteen years have seen a bewildering number of "victimization" surveys designed to estimate the magnitude and characteristics of the underreporting problem (Biderman, 1967; Biderman and Reiss, 1967; Ennis, 1967; Santarelli, Work, and Velde, 1974; Hindelang, 1976; Skogan, 1977 and 1981). Victimization surveys have even captured the imagination of the federal government; the United States conducts a periodic *National Crime Survey* to provide survey-based estimates of national crime rates.

The basic paradigm of victimization surveys involves the use of classical sample survey methods to produce estimates of the incidence of a variety of offenses. In a typical victimization survey, the respondent is asked whether he or she or anyone else in the household was the victim of a given crime within a specified time period, usually the previous twelve months. Depending on the sampling method used, the marginal incidence of the offense is then used to project a national rate for this particular crime. When these survey-based rates are compared to the rates based on the FBI's police statistics, the survey-based rates generally produce much higher estimates of crime rates.

The size of the hidden figure of crime appears to vary from offense to offense. In one study, for example, it was estimated that police statistics had recorded about one-third of all the burglaries and about half of the robberies, aggravated assaults, and rapes (Hindelang, 1976). Victimization surveys generally find that roughly half the respondents who mention an offense to the interviewer admit that they did not report it to the police, generally out of fear of reprisal, general cynicism, unwillingness to get the offender in trouble, or distrust of the police and judicial system. Underreporting also stems from the failure of the police to detect some crimes, to make arrests in some of the crimes they do detect, or to record some of the crimes that are reported to them—for instance, police "unfounding" procedures dismiss some reported offenses as false. Still other offenses may be lost if, in cases where an individual commits multiple offenses, only the most serious is recorded.

It has been suggested that underreporting may be an important social process in its own right, not merely a source of methodological contamination for crime statistics. Kitsuse and Cicourel (1963) have drawn attention to the role social definition plays in the reporting process, suggesting that crime statistics can be interpreted as indicators of official concern rather than as objective measures of the true volume of illegal acts. One researcher (Wheeler, 1967) has proposed that researchers examine the ways in which offenders, victims, and police interact to pro-

duce official crime statistics. A number of researchers have, in fact, approached the phenomenon of underreporting by direct observation of the differences between police records and the actual behaviors of delinquents, gang members, and young men generally (Murphy et al., 1946; McCord and McCord, 1959; Piliavin and Briar, 1964; Miller, 1967). In general, these observational or "field" studies concur with the general conclusion of victimization surveys that significant numbers of offenses are never recorded in official police statistics.

Most research on underreporting has, however, been undertaken to provide estimates of the "true" incidence of an offense and the magnitude of the underreporting proportion—the ratio of officially recorded offenses to the total number of offenses reported in victimization surveys. Direct comparisons between survey-based crime rates and official crime statistics are sometimes difficult because of differences in coverage, and a number of researchers have argued against direct comparison (e.g., Velde, Work, and Holtzman, 1975). Many surveys limit the age of their sample (e.g., to those over 12) while police statistics nominally include individuals of all ages; many surveys do not include homicide, white collar crimes, shoplifting, and other offenses included in police statistics.

It should be mentioned that victimization surveys are not without problems of their own if one's objective is an unbiased estimate of the "real" volume of crime. For example, just as police statistics may be diminished by underreporting, victimization surveys may also miss those offenses which respondents are reluctant to reveal to an interviewer. Certain offenses, such as rape by an acquaintance or a family member, are perhaps as unlikely to be reported in a survey as they are unlikely to reach police statistics (Skogan, 1976: 139). This problem has led to the suggestion that, at least for certain offenses, there is a "doubly dark" figure of crime—that is, offenses which are not reported to the police *or* to an interviewer in a victimization survey (Skogan, 1977b: 45).

Victimization surveys are also subject to a number of specific methodological problems. One of these has been called "telescoping"—the tendency of some respondents to report crimes that actually occurred before the time period covered in the survey. There may also be certain social class differences in the tendency to recall or report crime during an interview. This has been called the problem of "differential productivity of respondents" (Skogan, 1981).

In addition, problems intrinsic to survey research may also affect victimization studies. For example, Maltz (1977) reports that some of the National Crime Panel survey data show disquieting variance across interviewers—that is, some interviewers produce high rates of reported criminal victimization while other interviewers produce low rates. It is

difficult to know the precise reasons for this differential response, although it suggests that respondents are encouraged by or willing to confide in some interviewers more than others. Finally, there is some evidence that the structure of the victimization interview may also affect the likelihood that crimes will be recalled or remembered. In one study, respondents were more likely to recall a crime if they were first asked about their attitudes toward crime and the police; they were less likely to recall an offense if these attitude items were omitted (Maltz, 1977).

Despite these problems, it seems clear that the method of victimization research can produce useful information about crime and official statistics. This method also allows us to investigate the phenomenon of admitted underreporting—that is, the circumstances which characterize a victim's decision not to report an offense to the police. At least three variables in the offense itself appear to play a role in the decision to report the offense to the police: (1) in the case of thefts, the higher the value of the stolen items, the more likely the victim is to report the loss; (2) in the case of assaultive crimes, the victim is more likely to report the offense if a weapon is present; and (3) if the victim and offenders are strangers, the offense is more likely to be reported to police (Skogan, 1977). Existing research suggests that many victim characteristics, such as race, do not affect underreporting. Age, however, appears to be an important variable. Victimization surveys indicate that people under the age of twenty are much less likely than older people to report crimes to the police.

The seriousness of the offense is by far the most important determinant of whether or not it is reported. This has led to a tempering of what appeared to be, early in victimization research, somewhat revolutionary expectations. The finding in early victimization surveys that large *numbers* of offenses were missing from police statistics led some to assume that the "crime problem"—which already seemed grievous when judged from police statistics—was in fact a great deal worse than had been imagined. If only a third or a half of the crimes committed were being reported, according to this reasoning, then the actual rates of crime were in fact many times higher than the (already high) official crime rates.

New evidence suggests that this concern was exaggerated. While it is true that large *numbers* of crimes never reach police statistics, the *importance* of these unreported offenses is highly debatable. It is now recognized that most unreported crime consists of minor property offenses (Skogan, 1977b: 49). This finding has changed our understanding of the hidden figure of crime:

The reservoir of unreported crime contains a disproportionate number of less serious incidents involving small financial loss, little serious injury, and (infrequent) use of weapons. (Skogan, 1977b: 41.)

Contrary to considerable speculation about the portentous implications of unreported crime, these data indicate that the vast pool of incidents which do not come to the attention of the police does not conceal a large amount of serious crime. (Skogan, 1977b: 46)

It now appears, therefore, that while official American crime statistics do underenumerate, the degree of underenumeration varies inversely with the seriousness of the offense. With the possible exception of certain offenses such as rape, in which reporting could embarrass or stigmatize the victim, it seems reasonable to assume that the official data provide a reasonably accurate record of *serious* offenses. This new evidence restores to official crime statistics some important forms of usefulness.

The finding that serious offenses are relatively immune to underreporting has particular significance for the offense of homicide. At this time, there is no evidence that homicide data suffer from underreporting; in fact, there are strong reasons to believe that this particular violent crime is fully enumerated in official crime statistics. For example, a presidential crime commission concluded that, compared to other offenses, homicide was an especially valid indicator because it appeared to be invulnerable to police misclassification (Mulvihill and Tumin, 1969). Historians of crime and violence also have urged attention to this offense precisely because it appears to have been relatively invariant in definition and tabulation. Crime historians have been particularly sensitive to the risk of confusing mere definition or measurement changes with actual crime rate changes and, in general, they have concluded that this risk

is more serious for certain kinds of crimes than for others. For example, it is unlikely that there has been significant change over the last hundred years in the way in which murder has been defined or murderers apprehended. (Ferdinand, 1967: 86)

There is other evidence on this question as well. Researchers on homicide have concluded that the overwhelming majority of homicides are cleared by arrest and that, as a result, police statistics fully enumerate this offense. Other researchers have concluded that the FBI's *Uniform Crime Report* is accurate for the offenses of murder and non-negligent manslaughter (Hindelang, 1974). In most victimization surveys, including the National Crime Panel Survey, the offense of homicide is not even included because it is believed to be fully enumerated (Skogan, 1977b: 45).

In the victimization survey by Ennis (1967), however, respondents were asked to note any homicides of which they were aware. In this study, the data indicated that official crime statistics on this offense were accurate and valid. Thus, evidence on this question appears to be consistent and persuasive: homicide is the most valid of offense indicators in that official statistics on this offense are immune to underreporting.[1]

Since the majority of victimization surveys have been done in the United States, the effect of underreporting on international crime data is less well understood. As indicated earlier, there is a widespread belief that the official crime statistics of the United States are in many ways inferior to those of other industrial nations. At the same time, the few cross-national victimization surveys that have been done suggest that underreporting also occurs in other societies and that the pattern of decreasing underreporting with the increasing severity of an offense is similar to that in the United States (e.g., Sparks, 1976; Sparks, Genn, and Dodd, 1977).

In cross-national records on homicide, it appears to be the case—as in the United States—that underreporting is simply not an issue. Existing evidence suggests that homicides are fully enumerated (Phillipson, 1974; Verkko, 1953 and 1956). These findings indicate, again, that data on homicide are superior to other offense data in terms of their resistance to underreporting. As a result, as will be discussed below, homicide data can be presumed to be valid for a wide range of research designs—only *some* of which are appropriate for data on less serious offenses.

### Underreporting and Levels of Crime

These findings that not all offenses are reflected in official crime statistics and, at the same time, that the most serious offenses—particularly homicides—are fully enumerated have nontrivial implications for the validity of research on crime and violence. These implications, clearly, vary depending upon the specific offense examined and the uses to which official crime data are applied.

The research designs most vulnerable to the problem of underreporting are those which address the absolute volume or *level* of an offense. The basic problem with this sort of analysis is that one cannot assume a priori that the "underreporting proportion"—the ratio of reported offenses to total offenses—is invariant. For example, a study using official crime statistics to compare the levels of burglary in two cities (or two nations) will be jeopardized or even invalidated if the underreporting proportions in these two units differ. Similarly, a study comparing the level of burglary in a city (or nation) in 1960 and 1970 will produce spurious results if the underreporting proportion has changed during this decade. This problem is not limited to comparisons: it also affects one-sample studies—for example, a simple estimate of the probability that a home in a given city or nation will be burglarized in a given year will be inaccurate if the underreporting proportion for this offense is low.

The generic problem in such research designs is that the "real" crime rate and the underreporting proportion are hopelessly confounded. If

official statistics show that city A has a higher rate of burglary than city B, we can conclude *either* that city A really has a higher burglary rate or that city A does not have a higher burglary rate but merely a more complete enumeration of this offense. This uncertainty is irreducible for certain uses of official crime statistics. In some cases, of course, one could do victimization surveys to answer these questions—but, quite apart from the different set of problems which characterize victimization surveys, the expense and time required would severely restrict the number and range of possible investigations.

There are a number of possible solutions to this problem of the confounding of offense levels and underreporting proportions. Each of these solutions carries a different form of threat to the validity of the inferences a researcher might hope to draw. The most conservative solution is to renounce all comparisons of the levels of various offenses. One might argue that the confounding effects of underreporting proportions make the "real" level or volume of an offense fatally ambiguous and, therefore, useless to the investigator.

While we are not unsympathetic with this conclusion, our own inclinations are to take a somewhat less conservative approach. This purist argument is highly persuasive, in our view, for a particular combination of indicators and designs which we believe may well be generally invalidated by underreporting: *analyses of the absolute level of nonhomicide offenses.* Instances of this research design abound in both American and cross-national research—for example, contrasting the robbery rate in California and New York, estimating the frequency of assault in Chicago, calculating the "clearance rate" (arrests/number of offenses) for burglary in the United States, and comparing rape rates in the United States and Britain. Such studies require us to believe that official statistics provide valid estimate of the real level of these offenses—and the evidence from underreporting research makes this belief generally untenable.

In some cases, these questions may have empirical answers. For example, before making the comparisons of crime levels mentioned above, one could examine victimization survey data from the affected jurisdictions to determine whether the underreporting proportions differ in the jurisdictions to be compared. If the underreporting proportions do not differ, the evidence from the victimization research could be reported as empirical justification for using offical crime statistics in a direct comparison of crime levels.

On the other hand, if the underreporting proportions *do* differ in the jurisdictions one wishes to compare, a weighting procedure might be appropriate. This procedure can be illustrated using one of the hypothetical comparisons listed above—a design which contrasts the robbery rate in California and New York. Suppose that official statistics show the

robbery rates of these two states to be, respectively, 100 and 65 offenses per 100,000 population. Suppose further that victimization surveys have shown the respective underreporting proportions to be .80 to .50—i.e., that 80% of all robberies are reported to the police in California but only 50% of all robberies are reported to the police in New York.

One can use this information to produce new estimates of the robbery rates in the two jurisdictions. In this example, the "corrected" or "adjusted" robbery rates (i.e., the official rate divided by the underreporting proportion) are 125 and 130. Contrary to the impression produced by official statistics, therefore, New York would have a *higher* robbery rate than California when the official statistics are corrected for underreporting.

In summary, research on the *levels* of one or more crimes requires that certain assumptions be made about the underreporting proportions which characterize the offenses under study. Two reporting units (cities, states, or nations) can be compared on the level of an offense only if one or more of the following conditions are met: (1) underreporting is not a problem for this offense; (2) underreporting proportions for this crime are known and are essentially equal for both reporting units; or (3) underreporting proportions for this crime are unequal but can be used as weights to correct the official rates for this offense.

These conditions are clearly stringent. At present, there is only a single offense for which underreporting can be assumed to be no problem: homicide.[2] For this reason, comparisons of the *level* of homicide in different jurisdictions can reasonably be assumed to be immune to underreporting and therefore valid. There are, of course, other considerations which affect cross-national comparisons—for instance, statutory differences between nations in the way this offense is defined, an example being the distinction between homicide and manslaughter.

In general, however, homicide is an offense which appears valid for virtually all comparative research designs because all existing evidence suggests that this offense is fully enumerated. Research designs on the levels of nonhomicide offenses must therefore meet at least one of the remaining two conditions, both of which require estimates of the underreporting proportions for the jursidictional units in the research design. For cross-national comparisons of the *levels* of an offense, these two conditions cannot be met at present since little or no empirical research has been done on underreporting proportions in other societies. Although the prevailing belief among many social scientists is that underreporting is not a problem in many other nations, this assumption has not been widely documented with victimization research in a large sample of nations.

With the exception of the fully reported offense of homicide, there-

fore, simple cross-national comparisons of the levels of a crime are at present imprudent or even unwarranted. In the absence of empirical estimates of underreporting proportions in the societies under study, such comparisons would require the seemingly indefensible assumption that the two unknown proportions are equal.

The prospects for the comparisons of crime levels *within* the United States may be somewhat brighter, if only because more victimization surveys have been done. If one examines a number of victimization surveys, it appears that—even though underreporting certainly exists—the underreporting proportions are fairly stable across different jurisdictions. A number of such surveys are listed in table 3.1, and the underreporting proportions uncovered in these surveys are indicated. For the offense of robbery, for example, table 3.1 indicates that the mean

**Table 3.1.** Comparison of Independent Estimates of Underreporting Proportions for Five Offenses

| Offense | Five-city study[a] | | Eight-city study[b] | | Thirteen-city study[c] | | UCR/ Ennis[d] |
|---|---|---|---|---|---|---|---|
| | Mean proportion | Range | Mean proportion | Range | Mean proportion | Range | |
| Robbery | .51 | (.47–.60) | .52 | (.44–.57) | .53 | (.44–.65) | .65 |
| Simple Assault | .33 | (.28–.37) | .33 | (.27–.39) | .33 | (.29–.45) | —[e] |
| Aggravated Assault | .53 | (.51–.57) | .51 | (.46–.60) | .48 | (.41–.55) | .49 |
| Aggravated Assault with Injury | .66 | (.57–.73) | .58 | (.52–.63) | .58 | (.46–.77) | —[e] |
| Rape | .54 | (.46–.61) | .50 | (.35–.58) | .49 | (.34–.65) | .27 |
| Burglary | .54 | (.52–.57) | .54 | (.50–.57) | .53 | (.46–.58) | .31 |
| Household Larceny | .24 | (.22–.26) | .27 | (.20–.32) | .25 | (.19–.32) | .44 |

NOTES: The underreporting proportions in the five-, eight- and thirteen-city studies are the ratio of two self-report figures: (1) the number of crimes respondents said they reported to police and (2) the total number of crimes respondents said they experienced. The UCR/Ennis proportion, however, compares self-report data to the actual police statistics compiled in the FBI's *Uniform Crime Report*.

[a] Means calculated from Table 8 of Santarelli et al. (1974b).
[b] Means calculated from Table 8 of Santarelli et al. (1974a).
[c] Means calculated from the thirteen different Table 6's of Velde et al. (1975).
[d] Underreporting proportion calculated from Table 1 of Ennis (1967), using the UCR rates for individuals and residencies.
[e] The Ennis survey did not report rates for these assault categories.

underreporting proportion was .51 in a five-city survey, .52 in an eight-city survey, and .53 in a thirteen-city survey. Table 3.1 also presents the range of underreporting proportions—for example, in the five-city survey, the robbery underreporting proportion varied from .47 to .60.[3]

It is apparent from table 3.1 that underreporting varies from offense to offense—for instance, household larcenies appear to be reported relatively infrequently while robbery and aggravated assault with injury appear to be enumerated much more fully. Despite the variation *across* offenses, the range of the underreporting proportions *within* each offense category appears to be narrow, at least for some offenses. Since sampling errors occur in any survey, it may not be unreasonable to assume that ranges of this magnitude could be accounted for merely by the standard error of the mean. At any rate, it does not appear to be the case—at least for some offenses—that the underreporting proportions vary widely from city to city. This stability is perhaps particularly impressive since the twenty-six cities included in this comparison vary greatly in size and other characteristics.

For these twenty-six cities, then, valid comparisons of the absolute level of certain crimes, particularly the more serious offenses of aggravated assault and robbery, may be possible. The jurisdictional stability of underreporting in this analysis supports the conclusion that underreporting may be due to the nature of the offense rather than to a wide range of variables which vary unpredictably from city to city. This information could be used in diverse ways. If underreporting proportions appear highly stable across jurisdictions—as they do for the offense of robbery—then one would feel encouraged to compare directly official statistics on the robbery rates in these cities.

For other offenses, one could even compute how different the underreporting proportions would have to be to produce spurious offense rate differences of an observed size. For example, suppose city A reports an aggravated assault rate of 200 (per 100,000 persons), while city B reports an aggravated assault rate of 400. For this difference to be spurious (i.e., due to inter-city variation in underreporting), the underreporting proportions in the two cities would have to differ by a factor of at least 2:1. For example, the underreporting proportions would have to be something like .40 in city A and .80 in city B. An examination of table 3.1 shows that, across all twenty-six cities in the comparison, the offense of aggravated assault varied only from .41 to .60. This suggests that a 2:1 ratio between the underreporting proportions of city A and city B is extremely unlikely and that the observed higher assault rate in city B is real rather than spurious.

This analysis can be stated in more general form. The relative stability of the underreporting proportion can be used to determine how likely

it is that an observed difference in the official offense rates of two jurisdictions is only an artifact of differential reporting. The general form of this informal "spuriousness test" might be stated as follows:

> If two jurisdictions have rates of the same offense which have a ratio of $x/y$, this difference in offense rates is (other things being equal) genuine unless one is willing to assume that the underreporting proportions in the two jurisdictions have a ratio which is as large as or larger than $y/x$.

This spuriousness test has the obvious implication that large differences are affected less by underreporting artifacts than are small differences. For example, if two cities have burglary rates of 3000 and 1000 (per 100,000 population), these rates make a ratio of 3:1. The underreporting proportion in the city with the apparently higher burglary rate would have to be *three* times higher (e.g., .31 vs .93) for this crime rate difference to be an artifact due to underreporting. As the data for burglary in table 3.1 indicate, differences of this magnitude in underreporting proportions seem extremely unlikely.

A smaller difference in observed offense rates would, of course, be more vulnerable to underreporting. If two jurisdictions had reported rape rates of 20 and 30 (per 100,000 population), for example, this difference could be an artifact if the underreporting proportions in the two jurisdictions had a ratio of 3:2—e.g., .60 and .40. As can be seen from table 3.1, this difference is—unlike previous examples—within the apparent range of underreporting for the offense of rape. As a result, it might be judicious in this instance to conclude that the comparison is indeterminate. The difference between the two jurisdictions could be genuine, but it could as easily be an artifact of differential underreporting in the two jurisdictions.

In summary, studies of the *level* of an offense are vulnerable to underreporting. In particular, the following conclusions appear warranted: (1) in the case of homicide, underreporting appears to be negligible or nonexistent, and studies of the levels of this offense are therefore not problematic; (2) for other offenses, it appears that the most serious offenses are well enumerated—that is, most are reported; (3) less serious offenses are more often underreported; (4) in cases where the magnitude of the underreporting of an offense can be estimated, this estimate can be used to produce weighted or corrected estimates of the offense rate; (5) even for the less serious offenses, underreporting proportions appear to be fairly stable, at least in the United States; and (6) in comparisons of crime rates in two jurisdictions, one can determine whether observed differences in crime rates are likely to be genuine or an artifact of differential underreporting in the two jurisdictions. Some of these conclusions, while warranted in terms of available evidence from U.S. crime

statistics, have not been examined using cross-national data. For this reason, some caution seems appropriate before assuming that these conclusions also apply to the data of other nations.

From the above analysis, it appears that underreporting proportions are reasonably stable across different jurisdictions. This stability provides indirect encouragement for comparisons of offense levels in the same jurisdiction at two or more points in time. Longitudinal research designs examine changes in an offense rate over time. This type of design seems warranted on theoretical grounds, since most of the factors which produce underreporting seem likely to be relatively enduring in nature.[4] This assumption about the temporal stability of underreporting proportions is addressed in the next section of this chapter.

### Underreporting and Trends of Crime

In the previous section, we examined the implications of underreporting for studies of the level of an offense. For reasons which will be indicated in this section, studies of *trends* of an offense are almost certainly less vulnerable to underreporting. This is because many of the idiosyncratic ways in which a nation generates offense rates—definition, record keeping, social or cultural attitudes about the seriousness of different offenses, etc.—are relatively durable over time. Studies of offense trends therefore hold these idiosyncrasies—and the underreporting proportions they produce—constant.

A comparison of how German and American assault rates changed after World War I would, for example, be unaffected by national differences in underreporting proportions as long as the proportions remained consistent. This comparison would not require that the underreporting proportions be the same in both countries, only that they be stable within each country. As an extreme example, one could make this comparison even if 80%·of all assaults were reported to the police in Germany (i.e., an underreporting proportion of .80) but only 20% of the American assaults were reported. This very large difference would have no effect on the study of assault rate changes after World War I—as long as these proportions were stable within both societies. Similarly, a comparison of the relationship between unemployment fluctuations and trends in robbery in the United States and England would be unaffected by different underreporting proportions in these nations, as long as the proportions remained internally consistent.

While studies of offense levels are strongly affected by underreporting, studies of offense trends are relatively unaffected because trend research does not require the assumption that underreporting proportions are the same in the jurisdictions to be compared. The importance of this distinction between studies of offense levels and studies of offense trends

has been recognized for some time, although its implications for the problem of underreporting have not been generally recognized. More than forty years ago, however, the difference between offense levels and offense trends was noted by the celebrated historian of crime Leon Radzinowicz:

> The impossibility of determining numerically the static aspect of criminality need not be any bar to a determination of its dynamic aspect—i.e., the changes taking place in the course of time. (1939: 275)

Trend designs are relatively invulnerable to underreporting because, unlike studies of offense levels, they require only a single condition or assumption: that reported offenses are related to the real number of offenses by some constant, which can be known or unknown. For example, if roughly 50% of a nation's robberies are consistently reported to the police, then official statistics on this offense are a perfectly valid index of *trends* in robbery—even though the official statistics greatly underestimate the actual incidence of this offense.[5]

In trend designs, it is unnecessary to use weighting to correct for underreporting proportions or even to know what these proportions are—as long as a researcher is willing to assume that these proportions are stable over time. Trend designs are even valid if some types of variation occur in the underreporting proportion over time. If this proportion fluctuates randomly around some mean value, then trend designs would suffer only from random (or "benign") error and not biased (or "malignant") error (Naroll, 1962). Random error has been called "benign" because it generally affects a research design only in a conservative direction—that is, it can decrease a researcher's chance of discovering a relationship in a data set but is unlikely to produce a spurious finding. In the case of crime trend research, this is because random errors inflate the nonmeaningful variance or "noise" in the offense rate. The effect of this "noise" upon research is called "attenuation," a reduction in the researcher's chance of identifying an important change or a relationship between two variables.

Spurious findings, by contrast, occur in cases of biased or malignant error—e.g., cases in which the error in the underreporting proportion over time is correlated, directly or indirectly, with an independent variable in a research design. For example, an urban police department's announced "crackdown" on street robberies could have the paradoxical effect of increasing the *official* robbery rate if the announcement somehow increases the likelihood that victims will report robberies, thus changing the underreporting proportion. The research designs in greatest jeopardy of spurious findings of this kind are, of course, studies designed to evaluate some intervention or policy change.

In general, trend designs require only the minimal assumption that underreporting proportions are stable over time, or at least stable with only random fluctuations. In theory, at least, this is an eminently testable assumption. In the case of American offense data, for example, one could test the temporal stability of underreporting proportions by means of consecutive replications of victimization surveys in the same jurisdictions—for example, by replicating in serial fashion the surveys of Santarelli et al. (1974a and 1974b) and Velde et al. (1975). Longitudinal victimization surveys of this kind could indicate whether underreporting proportions are stable over time. At the present time, however, definitive evidence on this question does not exist. For example, Skogan (1977b: 50) concluded that there were no data upon which to estimate the temporal relationship between reported and unreported offenses. At the same time, the existence of a National Crime Panel presupposes serial victimization surveys and, from a purely methodological perspective, this would be one of the most important contributions victimization research could make.

Lacking victimization surveys which are comparable over long periods of time, a number of less satisfactory approximations are available. For example, one of the reports of the National Crime Panel survey (Velde, McQuade, Wormeli, Bratt, and Renshaw, 1976) compared underreporting proportions in the 1973 and 1974 surveys; another (Velde, Wormeli, Bratt, and Renshaw, 1977) compared underreporting in the 1974 and 1975 victimization surveys. These comparisons do not provide ideal tests because they compare data from consecutive years rather than from longer intervals. But we have examined these data to see whether there are any changes in reporting over time and, if there are, whether these changes are any greater than the random fluctuations one would expect from sampling error alone in any survey.

In the study comparing the 1973 and 1974 data, the median percent change in reporting (offenses victims say they reported to police/all offenses victims say occurred) was +2.8% over 33 different offense categories. This figure was roughly half the median standard error (5.7%) for these 33 offense categories—that is, this 2.8% change in reporting appears to be due to sampling differences alone. In the comparison of the 1974 and 1975 data, the median change in reporting was +1.9% over 33 offense categories. This figure was, again, much smaller than the median standard error in these surveys (5.3%). In these two studies, therefore, the reporting proportions appear to be impressively stable, with no evidence of overall changes in underreporting.[6]

There is also some indirect evidence which offers grounds for considerable optimism on this point. The underreporting proportions for the twenty-six cities in table 3.1, for example, show generally impressive

consistency within a given crime category. This cross-sectional evidence suggests that the magnitude of underreporting may be firmly linked to the nature of specific offenses rather than to the (presumably changing) conditions of individual cities.

In summary, the study of offense trends is notably less problematic than research on offense levels. Although much research remains to be done, existing evidence suggests that underreporting proportions are reasonably stable over time, at least for the more serious offenses. This relative stability may be because underreporting is a function primarily of the seriousness of an offense rather than of other, more transitory factors. As discussed earlier, data on homicide are immune to the effects of underreporting and therefore are a valid basis for comparative analyses of both levels of and trends in this offense.

## PROBLEM 2: DIFFERENT INDICATORS

A persistent concern of researchers on crime and violence has been the relative merits of different indicators of the "real" level or rate of various offenses. There is a variety of potential indicators inherent in any criminal justice system: (1) the number of criminal acts known to the police ("offenses known"); (2) the number of suspected offenders detained ("arrests"); (3) the number of persons brought to trial ("indictments"); (4) the number of individuals found guilty of an offense ("convictions"); (5) the number of people sent to prison or some other institution ("incarcerations"); and even (6) the total number of persons incarcerated at any one time ("prison population").

Each of these indicators can provide a reflection of how much of a given offense is occurring in a society although, obviously, not all these reflections would be of equal size or accuracy. Various indicators occur at different distances from the offense itself, so that one would expect to observe roughly declining sums at successive points in the justice system: fewer arrests than offenses, fewer indictments than arrests, fewer convictions than indictments, and so on. This pattern of diminishing numbers has been called "criminal case mortality" (Van Vechten, 1942). One of the most famous dicta in the study of crime concerns this issue: "The value of a crime for index purposes decreases as the distance from the crime itself in terms of procedure increases" (Sellin, 1931: 346).

It is for this reason that the number of offenses known is considered to be the most accurate official measure of actual criminal behavior. It can be argued, of course, that victimization surveys are even closer to the offense than *any* of these official indicators (Maltz, 1977: 35). As a result, some researchers have concluded that, except for the fully enumerated offense of homicide, no official statistic will correspond directly to the number of criminal acts in society (Nettler, 1974: 44). At the same

time, it is certainly the case that not all official statistics are equally accurate, and the number of known offenses is considered highly preferable to other indicators (Clinard and Abbott, 1973: 22).

Although less desirable as measures of the volume of crime, other indicators still have potential uses. For example, one could use the indicator of the prison population to see whether conviction and sentencing patterns are affected by crowding or vacancies in a society's prisons. It might be that judicial discretion in sentencing (e.g., suspended vs. served sentences) is highly sensitive to the prison space available. If so, one would expect to find that the severity of judicial sentencing would correlate with, but lag behind, fluctuations in indicators of the prison population.

For research designs in which the incidence of an offense is theoretically important, however, many researchers have assumed that valid analyses are impossible with measures other than the number of offenses known. This is a methodologically rather "purist" position and, although it appears to be widely held, an analysis presented later in this chapter suggests that this position greatly understates the validity and usefulness of other types of indicators. Whether or not the offenses-known indicator is available, however, it seems clear that many types of direct comparisons are not meaningful unless one has at least the *same* indicator in the jurisdictions one wishes to compare.

### Different Indicators and Levels of Crimes

The problems posed by different indicators are particularly important for comparisons of the absolute level of an offense in a number of jurisdictions. These difficulties become acute in cross-national research because it cannot be assumed that the magnitudes of "case mortality" (e.g., attrition from the number of known offenses to the number of convictions) are similar across nations. Direct comparison using different indicators is vulnerable to potentially gross differences in the efficiency of national systems of criminal justice. It might be the case that 80% of all robberies are cleared by arrest in one society but only 25% in another nation. In this instance, national differences in the incidence of the offense would be hopelessly confounded with national differences in the clearance rate for this offense.

The hazards posed by this indicator problem are easy to illustrate concretely. Suppose, for example, that one wished to make a comparison of the absolute level of the homicide rates in the United States and Canada in 1970. This comparison would be impossible if only convictions data were available for the United States and only offenses known data for Canada. In some cases, the availability of additional data can solve

this problem. If *both* indicators can be obtained for a sample jurisdiction or sample time period in one of these societies, one can determine the ratio of the two indicators and, on this basis, generate an estimate of the value of the missing indicator.

For example, if sample data show that homicide convictions in the United States are consistently .8 (4/5) times the number of known offenses, the convictions data could be weighted by 1.25 (5/4) to estimate the number of known offenses. This estimated number of known offenses in the United States in 1970 can then be compared with the reported number of known offenses in Canada in 1970. In the absence of a sample of simultaneous indicators for at least one society, however, a simple comparison across two different indicators would produce a spurious elevation in the estimate of the homicide rate in Canada.

The problem of different indicators has implications for research with the CCDF since our data file includes a variety of indicators. For most nations in the file, the preferred indicator of known offenses is available. For a few nations in the file, only a less desirable indicator, such as convictions, is available. For some of the nations in the CCDF, two indicators are available for the same years. Nations with multiple indicators can be used to assess the value of even poor indicators for certain research designs, and this analysis is presented below.

### Different Indicators and Trends of Crime

As discussed above, different types of indicators are of variable quality for estimating the "true" incidence of an offense.[7] However, even imperfect indicators of the volume of an offense can still be useful indices of the *trends* in an offense if they can be assumed or shown to be related to the number of known offenses over time by some constant function. If this can be demonstrated, then fluctuations in these imperfect indicators (arrests, convictions, etc.) can still be used as indices of fluctuations in the incidence of known offenses. If indicators of different quality were found to bear a linear relationship to the number of known offenses, in short, it would be possible to use imperfect indicators to estimate trends in a good indicator which is not available.

Thus the critical empirical question concerns the relationship between good and imperfect indicators. Using data from the CCDF, we were able to assess the degree to which several different indicators manifest the same trends over time. The results of this analysis, using sixteen cases in the CCDF for which two indicators are available, are presented in table 3.2.

The evidence in table 3.2 strongly suggests that even poor indicators can serve as valid indicators of offense trends. This finding has nontrivial

**Table 3.2.** Correlations between Good and Imperfect Indicators of the Same Offense

| Nation | Years | Indicators | Correlation between two indicators for each offense | |
|---|---|---|---|---|
| Australia | 1964–1972 | (1) Crimes known (2) Crimes cleared | Murder and manslaughter | 1.00a |
| | | | Assault | 1.00a |
| | | | Rape | .98 |
| | | | Robbery | .96 |
| Canada | 1919–1943 | (1) Offenses known (2) Convictions | Offenses against the person; murder, manslaughter and assault | .90 |
| | | | Offenses against property with violence; robbery and burglary | .93 |
| | | | Offenses against property without violence; theft | .94 |
| Canada | 1952–1967 | (1) Charges (2) Convictions | Homicide | .82 |
| | | | Assault | .96 |
| | | | Robbery | 1.00a |
| | | | Theft | .93 |
| | | | Offenses against women | .98 |
| Denmark | 1933–1947 | (1) Crimes known (2) Crimes cleared | Homicide | .95 |
| | | | Assault | .96 |
| | | | Rape | .90 |
| | | | Robbery | .91 |
| | | | Theft | .97 |
| Denmark | 1948–1959 | (1) Crimes known (2) Crimes cleared | Homicide | .92 |
| | | | Assault | .92 |
| | | | Robbery | .91 |
| | | | Theft | .87 |
| | | | Rape | .81 |
| Finland | 1913–1924 | (1) Offenses reported (2) Prosecutions | Homicide | .84 |
| | | (1) Offenses reported (2) Convictions | Homicide | .74 |

**Table 3.2.** (continued)

| Nation | Years | Indicators | Correlation between two indicators for each offense | |
|---|---|---|---|---|
| Ireland | 1961–1964 | (1) Crimes known (2) Court cases | Murder | .85 |
| | | | Manslaughter | 1.00a |
| | | | Assault | 1.00a |
| | | | Indecent assaults against females | .99 |
| | | | Robbery | 1.00a |
| | | | Burglary and housebreaking | .99 |
| | | | Offenses against property without violence | .41 |
| Kenya | 1964–1968 | (1) Crimes known (2) Arrests | Homicide | .79 |
| | | | Robbery | .11 |
| | | | Theft | .93 |
| | | (1) Crimes known (2) Convictions | Homicide | .94 |
| | | | Robbery | −.59 |
| | | | Theft | .85 |
| Mexico | 1966–1972 | (1) Cases presented (2) Convictions | Homicide | .73 |
| | | | Assault | .81 |
| | | | Rape | .65 |
| | | | Robbery | .89 |
| Netherlands | 1949–1972 | (1) Final sentences (2) Crimes known | Murder and manslaughter; crimes against life | .77 |
| | | | Assault | .79 |
| | | | Robbery, theft and housebreaking | .41 |
| New Zealand | 1920–1954 1956–1971 | (1) Offenses known (2) Offenses cleared | All offenses | .96 |
| | | | All offenses | .98 |
| Norway | 1957–1970 | (1) Offenses known (2) Persons proceeded against | Homicide | .42 |
| | | | Assault | .92 |
| | | | Robbery–theft | .97 |
| | | | Rape | .42 |

**Table 3.2. (continued)**

| Nation | Years | Indicators | Correlation between two indicators for each offense | |
|---|---|---|---|---|
| Sweden | 1959–1966 | (1) Offenses reported | Homicide | .89 |
| | | | Robbery | .86 |
| | | (2) Offenses cleared | Burglary | .48 |
| | | | Rape | .82 |
| Tanzania | 1962–1972 | (1) Crimes known | Murder and manslaughter | −.60 |
| | | (2) Convictions | Assault | −.52 |
| | | | Robbery | .74 |
| | | | Theft | −.39 |
| Thailand | 1945–1962 | (1) Crimes known | All offenses | 1.00[a] |
| | | (2) Convictions | | |
| U.S. | 1933–1971 | (1) UCR murder and non-negligent manslaughter | Homicide | .85 |
| | | (2) Rates of death caused by homicides— vital statistics of U.S.[b] | | |
| | | Median correlation across all cases: | | |
| | | Homicide, murder and manslaughter | | .85 |
| | | Rape | | .86 |
| | | Assault | | .92 |
| | | Robbery, property offenses with violence | | .90 |
| | | Theft | | .90 |
| | | All offenses (3 cases) | | .98 |

[a] Correlation is .995 or greater
[b] Vital statistics section of U.S. Statistical Abstract

implications for cross-national research because of the inevitable heterogeneity in the criminal justice systems of different nations. The analyses summarized in table 3.2 substantially expand the number of comparative research designs which appear warranted. The general conclusion which emerges is that offense indicators from various stages of criminal justice processing "covary" over time—that is, they appear to trace similar trends over time. This finding suggests that while the notion of "criminal case mortality" is well founded, this "mortality" appears to

be crudely linear—e.g., the proportionate reduction from crimes reported to police to convictions in a given society is approximately constant.

The correlational analysis in table 3.2 indicates that good and imperfect indicators of an offense provide a consistent picture of the trends in the incidence of this offense. For the offense of homicide, for example, the median correlation between good and poor indicators for the sixteen cases is .85. This suggests the existence of an extremely strong relationship, over time, between a good indicator—know offenses—and less optimal indicators such as offenses cleared, prosecutions, convictions, etc. Although there is some variation across various societies, in general, the pattern of the relationships is both clear and strong. If one is interested in the *trend* of an offense, it appears that many different indicators—not merely the "best" indicator of known offenses—provide a valid index.

The pattern appears to be equally encouraging for offenses other than homicide, to judge by the median correlations between good and poor indicators in table 3.2: rape (.86), assault (.92), robbery (.90), theft (.87), and "all offenses" (.98). By the standards of measurement reliability in the social sciences, these values are extremely high. For example, intelligence tests and other measures in wide use in psychology tend to have reliabilities in the range of .60–.75. Attitude scales commonly have reliabilities which are lower still. Purely from the perspective of social science measurement, therefore, the fact that imperfect indicators are correlated with the best measure in the range of .85–.95 is impressive.[8]

This analysis suggests that, at least for some types of research designs, the widespread belief that indicators other than offenses known are unusable is unwarranted. Criminal case mortality has clear implications for studies of offense *levels*—some indicators are suitable for research on offense levels while others are not. But for *trend* designs, in which one seeks to characterize the direction and degree of change in an offense, it seems clear that a variety of indicators can provide a valid measure. In addition, trend estimates from imperfect indicators appear to be equally valid for homicide and less serious offenses.

On the basis of this analysis, we have concluded that data which cannot support certain research designs are entirely valid for other designs. If one has available only data on homicide convictions for Sri Lanka, for example, it is not possible to compare the absolute number of homicide offenses in Sri Lanka and another nation with only records on the number of known offenses. But the convictions indicator *is* valid if one wishes, for example, to (1) compare long-term trends in homicide in Sri Lanka and some other nation, (2) determine the effect of employment changes on homicide rates in Sri Lanka, or (3) test for the possible changes in the homicide rate if Sri Lanka abolishes capital punishment.

In our view, this analysis argues for a *design-specific methodology* which reconceives the potential validity of data on crime and violence in terms of the research design to which these data are to be applied. This *design specificity* is important since many of the research designs in greatest demand in the social sciences are, explicitly or not, trend designs in which an investigator is concerned with whether an offense rate goes up, remains stable, or goes down. In a great many cases, we believe it is possible to answer these questions about trends and changes with a high level of confidence even if the indicator available does not allow us to know the precise level of this offense at any one time.[9]

In summary, the problems of underreporting and different indicators clearly have *selective* effects rather than general effects. These problems jeopardize certain research designs while affecting other designs not at all. The analysis presented thus far can be summarized in typological form in table 3.3. This typology presents four generic comparative designs created from the combinations of two dichotomies: (1) offense levels vs. offense trends, and (2) homicide vs. other offenses. This typology subsumes a substantial proportion of all comparative research on crime and violence.

Because these four generic research designs are *differentially* susceptible to the problems of underreporting and different indicators, the typology provides a useful summary of the methodological issues addressed in this chapter. Because it provides a succinct summary of the relative vulnerability of these different designs, this typology is analogous to the comparisons which Campbell and Stanley (1966) published for nonexperimental research in general. Since table 3.3 addresses some of the unique problems inherent in comparative designs using crime data, it is intended to be both more concrete and directly applicable to this particular research domain.

It is clear from the table that not all designs are equally immune to methodological problems. Type IV designs—which involve comparisons of changes or trends in homicide rates—are unaffected by either underreporting or the problem of different indicators. For these reasons, they are preferable in terms of validity to all other research designs on crime and violence. At the other end of the validity spectrum, Type I designs—which seek to compare the levels of lesser offenses in different jurisdictions—are likely to be invalidated by *both* these serious methodological problems. For these reasons, it is difficult to imagine circumstances under which Type I research designs can be justified on the basis of official statistics alone.[10]

The other two research designs have methodological weaknesses which are complementary. Type II designs, which examine the levels of hom-

icide in different jurisdictions, are invulnerable to underreporting but are problematic if different indicators (arrests vs. convictions, etc.) are used in these jurisdictions.[11] Type III designs, by contrast, are vulnerable to the possibility of different underreporting proportions in different jurisdictions. But if one is willing to make the assumption that underreporting proportions are comparable in two jurisdictions (or can use victimization surveys to produce corrected offense rates), then these designs are probably valid even if different indicators are reported for these jurisdictions.

As indicated by this typology, the four generic research designs vary greatly in terms of the degree to which they are methodologically vulnerable. For this reason, it does not appear to be meaningful to discuss, in general terms, whether "research on crime statistics" is valid. Instead, this discussion needs to be design-specific rather than global. While certain generic research designs are almost certainly insupportable (at least on the basis of official statistics alone), others are both valid and unproblematic.

**Table 3.3.** Comparative Research Design Typology: Implications of Two Data Problems in Each of Four Designs

| Type of Comparison | Offense Type | |
| --- | --- | --- |
| | Nonhomicide offenses | Homicide offenses |
| | *Type I (−,−)* | *Type II (+,−)* |
| Levels | *Underreporting (−):* Comparisons of levels of lesser offenses cannot be made until the ratio (offenses reported/total offenses) has been estimated for each jurisdiction to be compared. | *Underreporting (+):* Not a problem in U.S. homicide data; probably not a problem in comparative data. |
| | *Different indicators (−):* Comparisons of levels of lesser offenses are not possible if different indicators are present unless (1) underreporting proportions are known (above) and (2) the relationship between different indicators can be estimated. | *Different indicators (−):* Comparisons of homicide rate levels in different jurisdictions cannot be made if different indicators are reported unless an indicator ratio (e.g., convictions/all homicides) can be estimated for one jurisdiction to produce a common indicator for comparison across jurisdictions. |

**Table 3.3.** (continued)

| Type of Comparison | Offense Type | |
| --- | --- | --- |
| | Nonhomicide offenses | Homicide offenses |
| | Type III (−,+) | Type IV (+,+) |
| Trends | Underreporting (−): Comparisons of trends of lesser offenses can only be made if one can assume or show that the ratio (offenses reported/total offenses) is a constant over time (with no more than random fluctuations) in each jurisdiction compared. | Underreporting (+): Not a problem in U.S. homicide data; probably not a problem in comparative data. |
| | Different indicators (+): Comparisons of trends in lesser offenses are possible if one assumes a constant underreporting proportion (above) since different indicators of the same offense are strongly correlated over time. | Different indicators (+): Not a problem in U.S. and comparative homicide data; different indicators of homicide are strongly correlated over time. |

## CONTROLLING DATA QUALITY

The evidence reviewed above suggests that considerable variation exists (1) between indicators of different crimes, with indicators of homicide having the greatest validity, and (2) between different indicators of the same crime, with the indicator of offenses known the best index of the actual volume of crime. If one's research design calls for a comparison of the levels of violent crime in several jurisdictions, therefore, one might try to include these known differences in data quality in the research design. This might be done, for example, by limiting comparisons to those cases with data on the number of homicide offenses known.

It has been recognized for some time that it should be possible to include in a research design information about the *variable* quality of different data. The idea of "data quality control" was first suggested by Naroll (1962; Naroll and Cohen, 1970) as a method for dealing with large data archives in which some of the data can be assumed to be of

higher quality than others. The basic principle of data quality control is a simple one: one should include in comparative research known data quality differences as a *variable* in the analysis.

There are a number of ways in which this might be done, but perhaps the simplest involves analyzing the data in sequential waves—the first wave would include only the data sets of highest quality, the second wave cases of average quality, and the third wave cases of the most doubtful quality. In this way, an investigator can estimate a result or test a hypothesis *within* each level of data quality. This procedure eliminates the possibility that spurious findings could be produced by comparing indicators of different quality.

For some uses of the data in the CCDF, data quality control may be appropriate and useful. In chapter 4, we present a study of the effects of wars upon violent crime rates in postwar societies. Using the CCDF, it was possible to identify for this analysis a large number of "nation-wars" (one nation in one war) and a number of control societies uninvolved in war. As a test of the effect of wars upon violent crime, the homicide rates of combatant and noncombatant nations were compared before and after the war years. As a part of the analysis, a data quality control procedure was used. In the first analysis, *all* the cases for which any homicide indicator could be obtained were included in the analysis. The second analysis, however, included *only* those cases for which the best homicide indicator (offenses known) was available. In this instance, both analyses pointed to the same conclusion about the effect of wars.

By making variations in data quality an explicit part of the analysis, data quality control excludes the possibility of spurious results due to complex interactions between the antecedent or causal variable and the type of indicator used in the analysis. In our study of the effect of wars, for example, data quality control eliminates the methodological danger that wars could produce increases in the actual level of homicide (offenses known) but decreases in the willingness of judges and juries to sentence offenders to prison (convictions and incarcerations). If this were the case, one might observe homicide increases in nations with the indicator of known offenses but apparent "decreases" in nations with the indicator of convictions.[12] In a large data set, complex interactions like this simple example would be invisible to the researcher without a data quality control procedure.

Whether or not a data quality control procedure should be used in a given study is largely a matter of the researcher's judgment. Most of the CCDF entries have a good indicator for homicide, for example, and studies of this offense may therefore not require data quality controls. The general attraction of a data quality control procedure, however, is that this simple method allows the researcher to examine a relationship

or test a hypothesis while holding constant known or presumed variation in the validity of various data sets.

## SUMMARY AND CONCLUSIONS

The premise guiding the methodological discussions in this chapter has been that the validity of research on crime and violence is *design-specific*. As a result of a number of specific methodological problems, some research designs are not defensible on the basis of official statistics alone, while others are demonstrably unaffected by these same problems. As a result of this analysis, we believe that an undifferentiated approach to crime statistics is methodologically unjustifiable. It cannot be argued persuasively that these data are either suitable or unsuitable for all purposes. It should be emphasized that we are not arguing that the validity of research with crime statistics is in any way indeterminate. Instead, the analysis presented in this chapter demonstrates that great variation exists across different research designs. Some research designs are perhaps fatally flawed, while others can be presumed to be valid.

In addition to the general finding that these methodological problems are design-specific in their implications, a number of specific conclusions appear warranted on the basis of existing research and additional analyses of data from the CCDF:

*1. Homicide Data in All Designs.* There is no evidence that official statistics on homicides underenumerate the actual incidence of this offense. As a result, homicide data constitute a valid basis for comparative research on both the levels and trends of this violent crime.

*2. Nonhomicide Offenses in Level Designs.* Research on the level of nonhomicide offenses involves some threats to validity because official statistics on these crimes are subject to underreporting. While the magnitude and consistency of the underreporting proportions for these offenses are not known for all jurisdictions and time periods, it appears that offense seriousness and underreporting are inversely related—that is, most serious offenses are reported. In addition, one can use information presented in this chapter to test for the likelihood that an observed difference in offense levels between two jurisdictions could be an artifact of differential underreporting.

*3. Nonhomicide Offenses in Trend Designs.* Research on trends in nonhomicide offenses is somewhat less problematic than research on offense levels. In these designs, it is not necessary to know the real level of an offense. The only methodological assumption necessary is that the underreporting proportion remains constant with no more than random fluctuations. In addition, one can use information presented in this chap-

ter to test for the likelihood that an apparent change in an offense rate could be an artifact of differential reporting.

*4. Different Indicators in Level Designs.* In attempting direct comparisons of offense levels in two jurisdictions, it is obviously essential that both jurisdictions report the same indicator. If each jurisdiction reports a different indicator, comparisons of levels of an offense are possible only if one has a sample of two overlapping indicators for the same period for at least one of the two jurisdictions.

*5. Different Indicators in Trend Designs.* While it is true that the indicator of known offenses is preferable to other indicators as a measure of the level of a given offense, a wide variety of indicators appear to be equally valid in research on trends or changes in an offense. As shown in this chapter, good and imperfect indicators are strongly correlated over time and may be considered substitutive in research on offense trends. This finding expands considerably the number of comparisons of offense rate trends and changes which are possible.

*6. Data Quality Control.* In a data set like the CCDF, considerable variation exists across individual cases. This variation includes differences in the indicator used, in the type of offense reported (e.g., "violent crimes" or different violent crimes listed separately), and almost certainly in the quality of the data themselves. These differences can be included in a research design by using a data quality control procedure described in this chapter.

One of the conclusions of the design-specific model is that some research designs are more conservative than others. Since the offense of homicide is fully enumerated, the most conservative comparative research design is to limit comparisons to levels and trends in this offense. In addition, the indicator of offenses known is widely regarded as the most valid offense indicator, so an even more conservative design would be to limit comparisons only to those nations with this particular homicide indicator.

While this research design is certainly unimpeachable, it is our view that nonhomicide data and other indicators are still useful and valid in certain types of research designs. In general, our approach in this chapter has been to examine the strengths and limits of these designs. In many cases, there appears to be strong empirical support for certain less conservative research designs. For example, evidence indicates that a large number of indicators provide an index of crime trends as valid as that provided by the offenses-known indicator. This finding provides strong support for the essentially substitutive nature of different indicators in trend designs.

In other cases, the appropriateness of the less conservative research designs is more a matter of indirect evidence. For example, comparisons of nonhomicide offenses can *include* the likelihood that differences in underreporting could explain an observed difference in offense rates. In this instance, one may want to approach less conservative research designs in a probabilistic manner. Using information like that presented in this chapter, it is possible in some cases to assess the relative likelihood that an observed difference could be spuriously produced by artifacts like reporting differences or, alternately, that the observed difference is genuine.

In the final analysis, of course, the researcher is best served by all possible efforts to assess the validity of the data in any given analysis. As indicated in this chapter, however, a great many research designs are viable. Certain designs are immune to serious methodologial problems while others are less conservative but still valid for specific comparative purposes. While this chapter has attempted to indicate the nature of major methodological pitfalls, the prospect for many forms of comparative research is clearly auspicious.

## NOTES

1. While this conclusion appears to be true, it should not be taken to mean that there are no *unknown* homicides. There are cases, for example, in which a homicide is discovered only long after the fact—for example, when the bodies of long-dead victims are unearthed. Prior to discovery, these victims may have been classified as "missing persons," "runaways," etc. One suspects that hidden homicides of this kind are more common in societies like the United States in which homicides are unusually common.

2. Traditional lore among crime researchers has held that the offense of auto theft is also fully enumerated because most insurance policies require that a loss be reported as a prerequisite to compensation. Some victimization surveys have found that this offense is fully enumerated (e.g., Ennis, 1967), while other surveys suggest that the underreporting proportion is at least .90, though less than 1.00 (Velde, Work, and Holtzman, 1975: 61; Skogan, 1977).

3. The underreporting proportion can be estimated in different ways. In the city surveys summarized in table 3.1, the underreporting proportions are the ratio of two *self-report* figures: (1) the number of crimes respondents said they reported to police, and (2) the total number of crimes respondents said they experienced. The UCR/Ennis proportion, however, compares self-report data to the actual police statistics compiled in the FBI's *Uniform Crime Report*.

4. There are some circumstances, however, which can produce a "paper" crime wave merely by sudden increases in the underreporting proportion. An example might be a wave of prostitution or gambling arrests just prior to an election. A celebrated case of changing underreporting proportions involved New York City crime statistics in 1950 (Leonard, 1952; Wolfgang, 1963: 715; President's Commission on Law Enforcement and the Administration of Justice, 1967: 22–23). Before 1950, New York's statistics for several offenses were suspiciously low—for example, the city reported an absolute number of robberies smaller than that for the city of Chicago, yet Chicago's population was half the size of New York's. Under pressure from the FBI's *Uniform*

*Crime Reports*, New York initiated a centralized reporting system. This innovation radically changed the city's underreporting proportion and produced a "paper" crime wave—reported robberies rose about 400% and burglaries increased 1300%.

5. The importance of this issue was first recognized by researchers in the early nineteenth century (Wolfgang, 1963: 713; President's Commission on Law Enforcement and the Administration of Justice, 1967: 21). The assumption that reported offenses bear a constant relation to actual offenses has been an expressed part of the rationale for the interpretability of the records on serious offenses maintained in the FBI's *Uniform Crime Reports* (Wolfgang, 1963: 709). Most researchers interested in comparative research also have concluded that underreporting proportions in other nations are stable over time (Verkko, 1953; Wolf, 1971).

6. Naturally, these comparisons assume that similar questions, question sequences, and interview formats are used. Surveys that used different descriptions of what constitutes "assault" would, of course, produce different levels of self-reported victimization. For this reason, a standardization of victimization survey methods is of obvious importance.

7. It should be emphasized that the "true" incidence of an offense, by definition, can never be known. As discussed earlier, even victimization surveys may omit offenses, particularly those which are either trivial or highly sensitive. In addition, victimization surveys are merely another *estimate* of the offense rate, and the absence of a palpable, perfect record of offense incidence makes it impossible to know precisely how accurate this estimate is. As a result, except in the case of the fully enumerated offense of homicide, all research on crime deals in estimates rather than the *real* incidence of an offense.

8. The obtained correlations in the range of .85–.95 can be seen either as measures of *reliability* (in the test-retest sense where the true volume of an offense is unknown) or as measures of *validity* (if one assumes that the good measure is a reasonably error-free index of the true volume of an offense).

9. The essential argument in this analysis is that one indicator can serve as a proxy for another indicator which happens to be unavailable. In this case, the evidence suggests that an imperfect indicator like convictions can be used as a proxy for the missing indicator of offenses known in a trend design. As will be discussed in a later chapter, other types of proxy indicators are possible—e.g., using trends in urban homicide data to estimate national trends in cases where the national data are unavailable. The use of proxy variables is not recommended, of course, unless one has empirical evidence that the proxy variables are likely to bear a strong relationship to the missing variable. In addition, although most social science research is concerned with trends, some studies involve an interest in residuals, short-term fluctuations which remain when time-series data have been "detrended." It is our view that this issue is less central to research on crime and violence, and we have not attempted it here. This question could be addressed using CCDF data, of course, simply by "detrending" a good and a poor indicator and then correlating the residuals (Kendall, 1973; Johnston, 1972).

10. Type I designs are possible, however, if one has available certain types of additional information. One would need estimates of the underreporting proportions for each jurisdiction to be compared and, in cases where different indicators are also involved, one would also need to be able to estimate the relationships among these different indicators (e.g., convictions/offenses known). While this additional information is not impossible to obtain, it cannot be estimated from official statistics alone.

11. This comparison is possible, of course, if one can estimate the relationship, within one of the societies, between the given indicator and the missing indicator. In the case of a society which reports only homicide convictions, for example, analysis of official archives might make it possible to learn for a sample of years how many homicide cases had produced the number of convictions reported. This would allow one to

estimate the convictions/known offenses ratio, and this ratio could be used to transform convictions data into estimates of the number of known offenses.

12. It should be noted that the mathematical possibility of interactions of this nature varies inversely with the degree to which different indicators of the same offense are correlated over time. The evidence reviewed earlier in this chapter suggests that different indicators (offenses known, convictions, etc.) are in fact *highly* correlated over time. As a result, it is improbable that homicide offenses and homicide convictions would show contradictory trends. For this reason, the risk of "indicator interactions" in trend designs may not be great in most cases.

## II.

# VIOLENCE IN CROSS-NATIONAL PERSPECTIVE

** VM/SP SERVICE LEVEL 0310 **** CPU SERIAL 014561  CPU MODEL  4341 ****
** PRINT STARTED 09/03/86 16:23:31 ****

| RSCS | RSCS | USERID | ORIGIN |
|---|---|---|---|
| ARCHER | UCSCVM | DISTCODE | SYSTEM |
| | | FILENAME | FILETYPE |
| 09/03/86 | 16:16:26 | FILE CREATION DATE | |
| 5824 | 00001001 | SPOOLID | COUNT |
| 09/03/86 | 16:23:31 | FILE PRINT DATE | |
| 0 | 04A | CLASS | DEVICE |
| STANDARD | | FORMS | |

TAG DATA: FILE (2620) ORIGIN UCSCC    daemon    9/03/86 16:19:49 P.D.T.

DANE ARCHER
STEVENSON COLLEGE
UNIVERSITY OF CALIFORNIA
SANTA CRUZ, CALIF, 95064

"eight" (sample)
(raw data set)

```
//EIGHT   JOB 21048,ARCHER,CLASS=D,
***@B UCSCVM   VS1      21048    A 00000000 UCSCC    ARCHER
// MSGCLASS=Q
LOG >>>> EIGHT    - 21048,ARCHER                 -D-    - 14:50  ARCHER
LOG IEF233A M 4C1,SC5820,,EIGHT,PTPCH,NEW.EIGHT.PLUS
LOG Job EIGHT.PTPCH(IEBPTPCH) #001 Complete 0000
LOG IEF280E K 4C1,SC5820,EIGHT,PTPCH
// EXEC PTPCH,SYSOUT=Q
XXPTPCH     PROC SYSOUT='A'                                       00000010
XXPTPCH     EXEC PGM=IEBPTPCH,REGION=50K                          00000020
//SYSPRINT DD SYSOUT=Q
X/SYSPRINT  DD SYSOUT=&SYSOUT                                     00000030
IEF653I SUBSTITUTION JCL - SYSOUT=Q
//SYSIN DD *
//SYSUT1 DD DSN=NEW.EIGHT.PLUS,
//  UNIT=TAPE,
//  VOL=(,RETAIN,SER=SC5820),
//  DISP=OLD,
//  LABEL=(2,SL)
//SYSUT2 DD SYSOUT=Q,DCB=(RECFM=FBA,LRECL=81)
//
IEF236I ALLOC. FOR EIGHT    PTPCH
IEF237I 4C1    ALLOCATED TO SYSUT1
IEF142I - STEP WAS EXECUTED - COND CODE 0000
IEF285I    NEW.EIGHT.PLUS                              KEPT
IEF285I    VOL SER NOS= SC5820.
IEF373I STEP /PTPCH   / START 86245.1450
IEF374I STEP /PTPCH   / STOP  86245.1452 CPU   0MIN 02.30SEC STOR VIRT 122K

        -------- Device type  Address  I/O count          Sysout DD name   Lines Class Copies
                 Tape          4C1       353               SYSPRINT            5   Q
                                                           SYSUT2          3,520   Q


        ------- Total sysin count       1.    Partition size  1,152K;   Memory used    122K.
IEF280E K 4C1,SC5820,EIGHT,PTPCH
IEF298I EIGHT    SYSOUT=Q.
IEF375I   JOB /EIGHT   / START 86245.1450
IEF376I   JOB /EIGHT   / STOP  86245.1452 CPU   0MIN 02.30SEC

     Job started Sep 02,1986 Tue 14:50:13                      CPU id-014561

     Estimated job cost (does not include tape mounts or JCL printing):
           CPU time       $.28  00:00:02.30 at $450. per hour
           I/O requests   $.42           353 at $1.20 per 1000
           Lines printed  $4.05        3,525 at $1.15 per 1000
                         ----------
           Total          $4.75   ($.35 minimum).
```

PUNCH
EOF ON SYSIN
END OF DATA FOR SDS OR MEMBER

Australia

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2003 | 1 | -1 | -1 | 51 | 90 | 244 | -1 | -1 | 3850 | 19 |
| 2004 | 1 | -1 | -1 | 58 | 97 | 225 | -1 | -1 | 3926 | 20 |
| 2005 | 1 | -1 | -1 | 46 | 86 | 256 | -1 | -1 | 4002 | 21 |
| 2006 | 1 | -1 | -1 | 56 | 70 | 239 | -1 | -1 | 4078 | 22 |
| 2007 | 1 | -1 | -1 | 45 | 90 | 255 | -1 | -1 | 4164 | 23 |
| 2008 | 1 | -1 | -1 | 46 | 60 | 278 | -1 | -1 | 4230 | 24 |
| 2009 | 1 | -1 | -1 | 45 | 59 | 260 | -1 | -1 | 4306 | 25 |
| 2010 | 1 | -1 | -1 | 46 | 77 | 250 | -1 | -1 | 4382 | 26 |
| 2011 | 1 | -1 | -1 | 33 | 97 | 235 | -1 | -1 | 4455 | 27 |
| 2012 | 1 | -1 | -1 | 48 | 88 | 221 | -1 | -1 | 4556 | 28 |
| 2013 | 1 | -1 | -1 | 52 | 71 | 298 | -1 | -1 | 4657 | 29 |
| 2014 | 1 | -1 | -1 | 57 | 67 | 300 | -1 | -1 | 4758 | 30 |
| 2015 | 1 | -1 | -1 | 40 | 14 | 226 | -1 | -1 | 4859 | 31 |
| 2016 | 1 | -1 | -1 | 35 | 15 | 193 | -1 | -1 | 4960 | 32 |
| 2017 | 1 | -1 | -1 | 30 | 15 | 239 | -1 | -1 | 5061 | 33 |
| 2018 | 1 | -1 | -1 | 21 | 11 | 155 | -1 | -1 | 5162 | 34 |
| 2019 | 1 | -1 | -1 | 48 | 3 | 220 | -1 | -1 | 5263 | 35 |
| 2020 | 1 | -1 | -1 | 38 | 7 | 223 | -1 | -1 | 5360 | 36 |
| 2021 | 1 | -1 | -1 | 46 | 8 | 235 | -1 | -1 | 5476 | 37 |
| 2022 | 1 | -1 | -1 | 46 | 5 | 240 | -1 | -1 | 5592 | 38 |
| 2023 | 1 | -1 | -1 | 30 | 9 | 246 | -1 | -1 | 5708 | 39 |
| 2024 | 1 | -1 | -1 | 34 | 6 | 217 | -1 | -1 | 5824 | 40 |
| 2025 | 1 | -1 | -1 | 41 | 8 | 253 | -1 | -1 | 5939 | 41 |
| 2026 | 1 | -1 | -1 | 37 | 15 | 235 | -1 | -1 | 6044 | 42 |
| 2027 | 1 | -1 | -1 | 45 | 14 | 224 | -1 | -1 | 6149 | 43 |
| 2028 | 1 | -1 | -1 | 42 | 11 | 222 | -1 | -1 | 6252 | 44 |
| 2029 | 1 | -1 | -1 | 48 | 15 | 244 | -1 | -1 | 6359 | 45 |
| 2030 | 1 | -1 | -1 | 29 | 14 | 224 | -1 | -1 | 6463 | 46 |
| 2031 | 1 | -1 | -1 | 51 | 9 | 211 | -1 | -1 | 6516 | 47 |
| 2032 | 1 | -1 | -1 | 32 | 14 | 217 | -1 | -1 | 6569 | 48 |
| 2033 | 1 | -1 | -1 | 36 | 16 | 216 | -1 | -1 | 6622 | 49 |
| 2034 | 1 | -1 | -1 | 32 | 6 | 191 | -1 | -1 | 6675 | 50 |
| 2035 | 1 | -1 | -1 | 40 | 10 | 188 | -1 | -1 | 6726 | 51 |
| 2036 | 1 | -1 | -1 | 34 | 14 | 182 | -1 | -1 | 6789 | 52 |
| 2037 | 1 | -1 | -1 | 38 | 20 | 227 | -1 | -1 | 6852 | 53 |
| 2038 | 1 | -1 | -1 | 37 | 9 | 60 | 65 | 754 | 6915 | 54 |
| 2039 | 1 | -1 | -1 | 34 | 10 | 64 | 117 | 988 | 6978 | 55 |
| 2040 | 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 56 |
| 2041 | 1 | -1 | -1 | 33 | 28 | 46 | 100 | 697 | 7110 | 57 |
| 2042 | 1 | -1 | -1 | 41 | 14 | 74 | 134 | 748 | 7181 | 58 |
| 2043 | 1 | -1 | -1 | 37 | 24 | 62 | 148 | 868 | 7235 | 59 |
| 2044 | 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 60 |
| 2045 | 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 61 |
| 2046 | 1 | -1 | -1 | 37 | 25 | 130 | 110 | 1033 | 7465 | 62 |
| 2047 | 1 | -1 | -1 | 51 | 22 | 170 | 128 | 1027 | 7579 | 63 |
| 2048 | 1 | -1 | -1 | 59 | 13 | 173 | 104 | 1072 | 7709 | 64 |
| 2049 | 1 | -1 | -1 | 60 | 10 | 176 | 138 | 1073 | 7908 | 65 |
| 2050 | 1 | -1 | -1 | 67 | 17 | 215 | 170 | 1103 | 8179 | 66 |
| 2051 | 1 | -1 | -1 | 67 | 19 | 203 | 176 | 1158 | 8422 | 67 |
| 2052 | 1 | -1 | -1 | 61 | 21 | 207 | 165 | 1457 | 8636 | 68 |
| 2053 | 1 | -1 | -1 | 83 | 22 | 318 | 137 | 1405 | 8818 | 69 |
| 2054 | 1 | -1 | -1 | 76 | 26 | 270 | 197 | 1333 | 8987 | 70 |
| 2055 | 1 | -1 | -1 | 83 | 17 | 271 | 158 | 1373 | 9201 | 71 |
| 2056 | 1 | -1 | -1 | 60 | 43 | 268 | 162 | 1805 | 9426 | 72 |
| 2057 | 1 | -1 | -1 | 79 | 13 | 241 | 184 | 2286 | 9640 | 73 |
| 2058 | 1 | -1 | -1 | 80 | 25 | 245 | 158 | 2533 | 9842 | 74 |
| 2059 | 1 | -1 | -1 | 93 | 29 | 212 | 188 | 2404 | 10056 | 75 |
| 2060 | 1 | -1 | -1 | 87 | 39 | 222 | 229 | 2727 | 10275 | 76 |
| 2061 | 1 | -1 | -1 | 90 | 70 | 254 | 223 | 3235 | 10508 | 77 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2062 | 1 | -1 | -1 | 114 | 48 | 231 | 298 | 3026 | 10705 | | 78 |
| 2063 | 1 | -1 | -1 | 95 | 83 | 185 | 135 | 3095 | 10916 | | 79 |
| 2064 | 1 | 143 | 34 | 272 | 262 | 1924 | 592 | 39695 | 11136 | | 80 |
| 2065 | 1 | 141 | 29 | 271 | 267 | 1898 | 7730 | 46826 | 11390 | | 81 |
| 2066 | 1 | 163 | 28 | 321 | 251 | 2227 | 992 | 56841 | 11600 | | 82 |
| 2067 | 1 | 137 | 36 | 300 | 311 | 2158 | 960 | 19072 | 11800 | | 83 |
| 2068 | 1 | 143 | 43 | 300 | 363 | 2508 | 1280 | 23562 | 12000 | | 84 |
| 2069 | 1 | 157 | 33 | 280 | 364 | 2483 | 1599 | 25597 | 12260 | | 85 |
| 2070 | 1 | 172 | 22 | 339 | 416 | 3282 | 1999 | 30591 | 12510 | | 86 |
| 2071 | 1 | 185 | 39 | 343 | 578 | 3862 | 2818 | 33925 | 12760 | | 87 |
| 2072 | 1 | 207 | 46 | 422 | 544 | 4285 | 3045 | 36976 | 12960 | | 88 |
| 2553 | 1 | 60 | 23 | -1 | 698 | 2830 | 250 | 20720 | 6954 | | 99 |
| 2554 | 1 | 68 | 23 | -1 | 609 | 2753 | 272 | 20930 | 6969 | | 100 |
| 2555 | 1 | 66 | 30 | -1 | 730 | 2888 | 311 | 22085 | 6974 | | 101 |
| 2556 | 1 | 88 | 20 | -1 | 659 | 2584 | 292 | 24627 | 6983 | | 102 |
| 2557 | 1 | 59 | 33 | -1 | 540 | 2907 | 338 | 28287 | 6997 | | 103 |
| 2558 | 1 | 53 | 14 | -1 | 640 | 2914 | 412 | 28569 | 7021 | | 104 |
| 2559 | 1 | 62 | 30 | -1 | 683 | 2855 | 353 | 29554 | 7049 | | 105 |
| 2560 | 1 | 55 | 25 | -1 | 671 | 2856 | 362 | 30569 | 7048 | | 106 |
| 2561 | 1 | 45 | 25 | -1 | 641 | 2424 | 383 | 32261 | 7087 | | 107 |
| 2562 | 1 | 54 | 20 | -1 | 709 | 2566 | 367 | 36618 | 7130 | | 108 |
| 2563 | 1 | 47 | 20 | -1 | 600 | 2761 | 378 | 38618 | 7172 | | 109 |
| 2564 | 1 | 44 | 22 | -1 | 669 | 2698 | 405 | 40180 | 7220 | | 110 |
| 2565 | 1 | 45 | 29 | -1 | 604 | 2648 | 433 | 45069 | 7250 | | 111 |
| 2566 | 1 | 49 | 14 | -1 | 582 | 2667 | 461 | 50667 | 7290 | | 112 |
| 2567 | 1 | 53 | 24 | -1 | 583 | 2954 | 597 | 55841 | 7320 | | 113 |
| 2568 | 1 | 45 | 10 | -1 | 600 | 2845 | 520 | 62873 | 7350 | | 114 |
| 2569 | 1 | 52 | 30 | -1 | 659 | 2923 | 550 | 65496 | 7370 | | 115 |
| 2570 | 1 | 70 | 35 | -1 | 673 | 3178 | 549 | 67676 | 7390 | | 116 |
| 2571 | 1 | 69 | 36 | -1 | 625 | 2875 | 684 | 67649 | 7460 | | 117 |
| 2572 | 1 | 63 | 40 | -1 | 679 | 3136 | 761 | 84127 | 7490 | | 118 |
| 2573 | 1 | 70 | 34 | -1 | 630 | 3132 | 825 | 81687 | 7522 | | 119 |
| 3063 | 1 | -1 | -1 | 2 | 11 | 10 | 20 | 0 | 170 | | 124 |
| 3064 | 1 | -1 | -1 | 4 | 8 | 6 | 13 | 0 | 177 | | 125 |
| 3065 | 1 | -1 | -1 | 3 | 5 | 8 | 22 | 0 | 185 | | 126 |
| 3066 | 1 | -1 | -1 | 2 | 5 | 7 | 16 | 2 | 193 | | 127 |
| 3067 | 1 | -1 | -1 | 1 | 6 | 4 | 14 | 1 | 190 | | 128 |
| 3068 | 1 | -1 | -1 | 5 | 1 | 3 | 7 | 1 | 200 | | 129 |
| 3069 | 1 | -1 | -1 | 2 | 4 | 4 | 15 | 2 | 210 | | 130 |
| 3070 | 1 | -1 | -1 | 2 | 1 | 3 | 14 | 3 | 220 | | 131 |
| 3071 | 1 | -1 | -1 | 2 | 3 | 4 | 16 | 4 | 220 | | 132 |
| 3072 | 1 | -1 | -1 | 1 | 0 | 8 | 16 | 2 | 220 | | 133 |
| 3073 | 1 | -1 | -1 | 2 | 5 | 4 | 28 | 0 | 227 | | 134 |
| 3541 | 1 | -1 | -1 | 11 | 294 | -1 | -1 | 15689 | 8274 | | 149 |
| 3542 | 1 | -1 | -1 | 15 | 311 | -1 | -1 | 22440 | 8246 | | 150 |
| 3543 | 1 | -1 | -1 | 28 | 308 | -1 | -1 | 24018 | 8241 | | 151 |
| 3544 | 1 | -1 | -1 | 5 | 254 | -1 | -1 | 12851 | 8291 | | 152 |
| 3545 | 1 | -1 | -1 | 33 | 259 | -1 | -1 | 5844 | 8339 | | 153 |
| 3546 | 1 | -1 | -1 | 37 | 399 | -1 | -1 | 7520 | 8357 | | 154 |
| 3547 | 1 | -1 | -1 | 45 | 451 | -1 | -1 | 6981 | 8450 | | 155 |
| 3548 | 1 | -1 | -1 | 49 | 562 | -1 | -1 | 7942 | 8557 | | 156 |
| 3549 | 1 | -1 | -1 | 41 | 783 | -1 | -1 | 6884 | 8614 | | 157 |
| 3550 | 1 | -1 | -1 | 29 | 775 | -1 | -1 | 4966 | 8639 | | 158 |
| 3551 | 1 | -1 | -1 | 22 | 661 | -1 | -1 | 5653 | 8678 | | 159 |
| 3552 | 1 | -1 | -1 | 27 | 747 | -1 | -1 | 6932 | 8730 | | 160 |
| 3553 | 1 | -1 | -1 | 20 | 749 | -1 | -1 | 5300 | 8778 | | 161 |
| 3554 | 1 | -1 | -1 | 11 | 705 | -1 | -1 | 4438 | 8819 | | 162 |
| 3555 | 1 | -1 | -1 | 18 | 713 | -1 | -1 | 4266 | 8868 | | 163 |
| 3556 | 1 | -1 | -1 | 14 | 806 | -1 | -1 | 4860 | 8924 | | 164 |
| 3557 | 1 | -1 | -1 | 15 | 867 | -1 | -1 | 4986 | 8989 | | 165 |
| 3558 | 1 | -1 | -1 | 17 | 825 | -1 | -1 | 4974 | 9053 | | 166 |
| 3559 | 1 | -1 | -1 | 22 | 1009 | -1 | -1 | 4977 | 9104 | | 167 |
| 3560 | 1 | -1 | -1 | 21 | 1130 | -1 | -1 | 5558 | 9153 | | 168 |
| 3561 | 1 | -1 | -1 | 11 | 1114 | -1 | -1 | 5667 | 9184 | | 169 |
| | 1 | | | 18 | 1141 | -1 | -1 | 5714 | 9231 | | 170 |

Austria

Bahrain

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 3564 | 1 | -1 | -1 | 16 | 993 | -1 | -1 | 5980 | 9378 | 172 |
| 3565 | 1 | -1 | -1 | 24 | 990 | -1 | -1 | 5577 | 9460 | 173 |
| 3566 | 1 | -1 | -1 | 26 | 866 | -1 | -1 | 6220 | 9530 | 174 |
| 3567 | 1 | -1 | -1 | 27 | 1049 | -1 | -1 | 7158 | 9580 | 175 |
| 3568 | 1 | -1 | -1 | 27 | 1006 | -1 | -1 | 7087 | 9620 | 176 |
| 3569 | 1 | -1 | -1 | 34 | 908 | -1 | -1 | 6274 | 9660 | 177 |
| 4041 | 1 | 1 | 1 | -1 | 4 | 106 | 4 | 393 | 32 | 182 |
| 4042 | 1 | 1 | 0 | -1 | 1 | 133 | 2 | 415 | 33 | 183 |
| 4043 | 1 | 1 | 1 | -1 | 0 | 126 | 5 | 335 | 33 | 184 |
| 4044 | 1 | 0 | 1 | -1 | 0 | 138 | 3 | 365 | 34 | 185 |
| 4045 | 1 | 2 | 1 | -1 | 3 | 98 | 6 | 409 | 35 | 186 |
| 4046 | 1 | 0 | 1 | -1 | 2 | 113 | 2 | 419 | 35 | 187 |
| 4047 | 1 | 1 | 1 | -1 | 1 | 98 | 9 | 581 | 35 | 188 |
| 4048 | 1 | 0 | 0 | -1 | 13 | 85 | 4 | 598 | 36 | 189 |
| 4049 | 1 | 2 | 0 | -1 | 7 | 91 | 3 | 515 | 36 | 190 |
| 4050 | 1 | 1 | 2 | -1 | 4 | 82 | 2 | 503 | 37 | 191 |
| 4051 | 1 | 0 | 1 | -1 | 7 | 101 | 5 | 552 | 38 | 192 |
| 4052 | 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 193 |
| 4053 | 1 | 1 | 1 | -1 | 4 | 60 | 13 | 752 | 39 | 194 |
| 4054 | 1 | 3 | 2 | -1 | 0 | 71 | 12 | 796 | 40 | 195 |
| 4055 | 1 | 0 | 0 | -1 | 3 | 78 | 13 | 832 | 40 | 196 |
| 4056 | 1 | 2 | 1 | -1 | 5 | 89 | 15 | 1109 | 41 | 197 |
| 4057 | 1 | 0 | 1 | -1 | 1 | 113 | 9 | 896 | 42 | 198 |
| 4058 | 1 | 0 | 2 | -1 | 5 | 96 | 11 | 1910 | 43 | 199 |
| 4059 | 1 | 7 | 1 | -1 | 4 | 134 | 11 | 1757 | 43 | 200 |
| 4060 | 1 | 2 | 1 | -1 | 3 | 100 | 14 | 2558 | 44 | 201 |
| 4061 | 1 | 1 | 2 | -1 | 2 | 97 | 15 | 2518 | 45 | 202 |
| 4062 | 1 | 1 | 0 | -1 | 2 | 127 | 21 | 2909 | 46 | 203 |
| 4063 | 1 | 0 | 0 | -1 | 7 | 124 | 22 | 3059 | 47 | 204 |
| 4064 | 1 | 2 | 1 | -1 | 5 | 132 | 22 | 2800 | 48 | 205 |
| 4065 | 1 | 0 | 0 | -1 | 3 | 121 | 18 | 3416 | 50 | 206 |
| 4066 | 1 | 1 | 3 | -1 | 3 | 147 | 12 | 3305 | 50 | 207 |
| 4067 | 1 | 2 | 0 | -1 | 5 | 176 | 16 | 3759 | 50 | 208 |
| 4068 | 1 | 2 | 4 | -1 | 2 | 85 | 11 | 2509 | 50 | 209 |
| 4069 | 1 | 1 | 1 | -1 | 4 | 98 | 11 | 3092 | 50 | 210 |
| 4070 | 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 211 |
| 4071 | 1 | 3 | 0 | -1 | 5 | 156 | 26 | 2120 | 50 | 212 |
| 4072 | 1 | 2 | 0 | -1 | 3 | 155 | 17 | 1769 | 51 | 213 |
| 4073 | 1 | 7 | 1 | -1 | 5 | 100 | 33 | 1837 | 52 | 214 |
| 4074 | 1 | 5 | 1 | -1 | 5 | 112 | 39 | 2594 | 52 | 215 |
| 5564 | 1 | 0 | -1 | 0 | 1 | 68 | 0 | 122 | 100 | 229 |
| 5565 | 1 | 0 | -1 | 0 | 2 | 56 | 0 | 113 | 100 | 230 |
| 5566 | 1 | 1 | -1 | 0 | 3 | 62 | 0 | 185 | 110 | 231 |
| 5567 | 1 | 1 | -1 | 0 | 0 | 13 | 0 | 189 | 110 | 232 |
| 5568 | 1 | 0 | -1 | 0 | 1 | 31 | 0 | 166 | 120 | 233 |
| 5569 | 1 | 1 | -1 | 0 | 1 | 46 | 2 | 245 | 120 | 234 |
| 5570 | 1 | 2 | -1 | 0 | 0 | 250 | 4 | 284 | 130 | 235 |
| 5571 | 1 | 0 | -1 | 0 | 3 | 363 | 2 | 329 | 140 | 236 |
| 5572 | 1 | 0 | -1 | 0 | 0 | 316 | 4 | 335 | 140 | 237 |
| 5573 | 1 | 2 | -1 | 0 | 4 | 336 | 4 | 297 | 143 | 238 |
| 5574 | 1 | 2 | -1 | 0 | 3 | 175 | 9 | 254 | 146 | 239 |
| 6553 | 1 | 11495 | -1 | -1 | 2207 | -1 | 38573 | 46164 | 19710 | 272 |
| 6554 | 1 | 9072 | -1 | -1 | 1944 | -1 | 31482 | 37613 | 20040 | 273 |
| 6555 | 1 | 7246 | -1 | -1 | 1737 | -1 | 28379 | 40999 | 20390 | 274 |
| 6556 | 1 | 12034 | -1 | -1 | 2504 | -1 | 36154 | 45860 | 20730 | 275 |
| 6557 | 1 | 2302 | -1 | -1 | 528 | -1 | 6320 | 9180 | 21130 | 276 |
| 6558 | 1 | 10256 | -1 | -1 | 2463 | -1 | 30133 | 43388 | 21530 | 277 |
| 6559 | 1 | 7031 | -1 | -1 | 3761 | -1 | 16661 | 34093 | 21940 | 278 |
| 6560 | 1 | 7879 | -1 | -1 | 3427 | -1 | 19566 | 33480 | 22360 | 279 |
| 6561 | 1 | 8232 | -1 | -1 | 3549 | -1 | 20307 | 34713 | 22780 | 280 |
| 6562 | 1 | 7400 | -1 | -1 | 3704 | -1 | 15992 | 37052 | 23253 | 281 |
| 6563 | 1 | 6774 | -1 | -1 | 3717 | -1 | 14968 | 41030 | 23735 | 282 |
| 6564 | 1 | 6792 | -1 | -1 | 3720 | -1 | 17712 | 45948 | 24229 | 283 |
| 6565 | 1 | 9120 | -1 | -1 | 5040 | -1 | 25368 | 64656 | 24730 | 284 |
| 6566 | 1 | 9975 | -1 | -1 | 4200 | -1 | 30600 | 68725 | 25250 | 285 |
| 6567 | 1 | 9698 | -1 | -1 | 3562 | -1 | 29432 | 88764 | 25810 | 286 |

```
6568 1   8505    -1    -1   6831    -1   20061   75141  26390                    287
6569 1   7755    -1    -1   3273    -1   15098   60115  26980                    288
6570 1   7252    -1    -1   3416    -1   62804   11172  27580                    289
75 1 1      7    12    -1    -1    346     52     316   5371                     302
75 2 1     11    17    -1    -1    522     29     287   5555                     303
75 3 1      8    14    -1    -1    680     81     346   5739                     304
75 4 1     14    19    -1    -1    699     92     366   5923                     305
75 5 1     12    15    -1    -1    651     84     477   6107                     306
75 6 1      3    15    -1    -1    592     62     392   6291                     307
75 7 1      8    24    -1    -1    728     99     318   6475                     308
75 8 1     14    22    -1    -1   1179    101     507   6659                     309
75 9 1     18    24    -1    -1   1264     92     313   6843                     310
751901     -1    60    -1    -1   1323   2300    8605   8639                     313
752001     -1    69    -1    -1   1389   1868    6559   8820                     314
752101     -1    56    -1    -1   1474   1966    5938   8968                     315
752201     -1    64    -1    -1   1451   1207    5865   9116                     316
752301     -1    53    -1    -1   1302   1704    6164   9264                     317
752401     -1    47    -1    -1   1440   1905    6610   9412                     318
752501     -1    55    -1    -1   1400   1624    6651   9559                     319
752601     -1    60   126    -1   1743   1896    7108   9744                     320
752701     -1    51   124    -1   1470   2167    7870   9929                     321
752801     -1    54   150    -1   1923   2583    8777  10114                     322
752901     -1    85   182    -1   2202   3696   10540  10299                     323
753001     -1    68   214    -1   2268   4327   11510  10484                     324
753101     -1    77   172    -1   2336   4267   11144  10614                     325
753201     -1    68   158    -1   2144   4347   11257  10744                     326
753301     -1    63   147    -1   2167   4238   10719  10874                     327
753401     -1    58   142    -1   2471   4147   10603  11004                     328
753501     -1    86   153    -1   2667   4841   11026  11135                     329
753601     -1    81   137    -1   2553   4604   11905  11244                     330
753701     -1    57   138    -1   2440   5509   14048  11353                     331
753801     -1    68   127    -1   2639   6147   14763  11462                     332
753901     -1    70   124    -1   2996   5416   13464  11571                     333
754001     -1    65   148    -1   3632   4217   11632  11682                     334
754101     -1    60   130    -1   3914   3920   11056  11822                     335
754201     -1    68   113    -1   4301   4223   12168  11962                     336
754301     -1    44   125    -1   4088   5291   12565  12108                     337
754401     -1    30   106    -1   4183   5297   12280  12262                     338
754501     -1    59   152    -1   4814   5783   12522  12394                     339
754601     -1    87   146    -1   5994   5304   12172  12622                     340
754701     -1    73   146    -1   5462   6541   11719  12888                     341
754801     -1    67   155    -1   4929   5076   11217  13167                     342
754901     -1    77   172    -1   4194   3952    9457  13447                     343
755001     -1    94   112    -1   4153   4292    9162  13712                     344
755101     -1   107   137    -1   3491   3883    9870  14009                     345
755201     -1    95   135    -1   3874   4040    9777  14430                     346
755301     -1    89   149    -1   3864   4174    9001  14781                     347
755401    125    96   157    -1   3765   4743    8746  15195                     348
755501    118    59   157    -1   3483   4606    8229  15601                     349
755601    131    93    -1    -1   3536   4580    9192  16123                     350
755701    129   118    -1    -1   3638   5588   11497  16677                     351
755801    153    98    -1    -1   3457   6896   12847  17120                     352
755901    141   115    -1    -1   3180   6435   12660  17522                     353
756001    190   112    -1    -1   3550   7642   14435  17909                     354
756101    185   114    -1    -1   3772   7863   15456  18269                     355
756201    217   164    -1    -1   3975   7776   15001  18600                     356
756301    215   151    -1    -1   4077   8701   16765  18928                     357
756401    218   137    -1    -1   4394   8399   16649  19237                     358
756501    243   141    -1    -1   4579   7927   17972  19680                     359
756601    221   142    -1    -1   5097   7965   20480  20050                     360
756701    282   168    -1    -1   4587   8179   20264  20410                     361
756801    315    -1    -1    -1    -1     -1      -1   20730                     362
756901    346    -1    -1    -1    -1     -1      -1   21030                     363
757001    433    -1    -1    -1    -1     -1      -1   21320                     364
757101    437     .    -1    -1    -1     -1      -1   21600                     365
```

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| ?5?30? | 474 | -1 | -1 | -1 | -1 | -1 | -1 | 22130 | 367 |
| 95 0 1 | -1 | -1 | 855 | -1 | 290 | 2481 | -1 | 2921 | 387 |
| 95 1 1 | -1 | -1 | 1002 | -1 | 310 | 2329 | -1 | 2966 | 388 |
| 95 2 1 | -1 | -1 | 1032 | -1 | 362 | 2475 | -1 | 3011 | 389 |
| 95 3 1 | -1 | -1 | 1068 | -1 | 331 | 2516 | -1 | 3056 | 390 |
| 95 4 1 | -1 | -1 | 1040 | -1 | 331 | 2943 | -1 | 3101 | 391 |
| 95 5 1 | -1 | -1 | 1040 | -1 | 317 | 715 | -1 | 3146 | 392 |
| 95 6 1 | -1 | -1 | 1063 | -1 | 306 | 2308 | -1 | 3191 | 393 |
| 95 7 1 | -1 | -1 | 941 | -1 | 216 | 1798 | -1 | 3231 | 394 |
| 95 8 1 | -1 | -1 | 1177 | -1 | 365 | 1830 | -1 | 3097 | 395 |
| 95 9 1 | -1 | -1 | 1252 | -1 | 260 | 2005 | -1 | 2963 | 396 |
| 9510 1 | -1 | -1 | 1252 | -1 | 366 | 1576 | -1 | 2829 | 397 |
| 9511 1 | -1 | -1 | 1246 | -1 | 284 | 1649 | -1 | 2696 | 398 |
| 9512 1 | -1 | -1 | 1275 | -1 | 298 | 1707 | -1 | 2817 | 399 |
| 9513 1 | -1 | -1 | 437 | -1 | 302 | 10 | -1 | 2938 | 400 |
| 9514 1 | -1 | -1 | 668 | -1 | 274 | 2106 | 4172 | 3059 | 401 |
| 9515 1 | -1 | -1 | 458 | -1 | 179 | 2743 | 6278 | 3180 | 402 |
| 9516 1 | -1 | -1 | 617 | -1 | 208 | 2226 | 5752 | 3301 | 403 |
| 9517 1 | -1 | -1 | 398 | -1 | 206 | 2501 | 7248 | 3422 | 404 |
| 9518 1 | -1 | -1 | 473 | -1 | .267 | 2865 | 7535 | 3543 | 405 |
| 9519 1 | -1 | -1 | 1456 | -1 | 350 | 58 | 8737 | 3664 | 406 |
| 9520 1 | -1 | -1 | 1272 | -1 | 278 | 2089 | 8207 | 3785 | 407 |
| 9521 1 | -1 | -1 | 1354 | -1 | 269 | 2533 | 8787 | 3843 | 408 |
| 9522 1 | -1 | -1 | 1421 | -1 | 325 | 2012 | 9420 | 3901 | 409 |
| 9523 1 | -1 | -1 | 1473 | -1 | 304 | 1616 | 8278 | 3959 | 410 |
| 9524 1 | -1 | -1 | 1324 | -1 | 333 | 1657 | 8067 | 4017 | 411 |
| 9525 1 | -1 | -1 | 1204 | -1 | 326 | 1647 | 7639 | 4073 | 412 |
| 9526 1 | -1 | -1 | 2251 | -1 | 399 | 1440 | -1 | 4131 | 413 |
| 9527 1 | -1 | -1 | 2245 | -1 | 549 | 1668 | -1 | 4189 | 414 |
| 9528 1 | -1 | -1 | 851 | -1 | 662 | 3723 | 7481 | 4247 | 415 |
| 9529 1 | -1 | -1 | 809 | -1 | 598 | 3338 | 7530 | 4305 | 416 |
| 9530 1 | -1 | -1 | 143 | -1 | 21 | 123 | 9229 | 4365 | 417 |
| 9531 1 | -1 | -1 | 22 | -1 | 986 | 39 | 10885 | 4432 | 418 |
| 9532 1 | -1 | -1 | 2656 | -1 | 762 | 6088 | 15785 | 4499 | 419 |
| 9533 1 | -1 | -1 | 2726 | -1 | 832 | 6335 | -1 | 4566 | 420 |
| 9534 1 | -1 | -1 | 2707 | -1 | 837 | 4887 | -1 | 4633 | 421 |
| 9535 1 | -1 | -1 | 1047 | -1 | 682 | 9716 | 20551 | 4700 | 422 |
| 9536 1 | -1 | -1 | 1134 | -1 | 640 | 9229 | 19298 | 4773 | 423 |
| 9537 1 | -1 | -1 | 1109 | -1 | 615 | 9079 | 19268 | 4846 | 424 |
| 9538 1 | -1 | -1 | 951 | -1 | 503 | 9312 | 17064 | 4919 | 425 |
| 9539 1 | -1 | -1 | 988 | -1 | 527 | 8466 | 17791 | 4992 | 426 |
| 9540 1 | -1 | -1 | 1024 | -1 | 562 | 7907 | 17386 | 5063 | 427 |
| 9541 1 | -1 | -1 | 1006 | -1 | 566 | 6996 | 17321 | 5154 | 428 |
| 9542 1 | -1 | -1 | 1152 | -1 | 578 | 7753 | 20318 | 5244 | 429 |
| 9543 1 | -1 | -1 | 987 | -1 | 671 | 8067 | 19701 | 5341 | 430 |
| 9544 1 | -1 | -1 | 1069 | -1 | 577 | 7155 | 17123 | 5440 | 431 |
| 9545 1 | -1 | -1 | 747 | -1 | 526 | 5679 | 16830 | 5541 | 432 |
| 9546 1 | -1 | -1 | 848 | -1 | 501 | 5318 | 17548 | 5643 | 433 |
| 9547 1 | -1 | -1 | 811 | -1 | 561 | 5572 | 19867 | 5748 | 434 |
| 9548 1 | -1 | -1 | 943 | -1 | 601 | 5448 | 19768 | 5854 | 435 |
| 9549 1 | -1 | -1 | 978 | -1 | 615 | 5000 | 29859 | 5962 | 436 |
| 9550 1 | -1 | -1 | 720 | -1 | 895 | 5170 | 19121 | 6073 | 437 |
| 9551 1 | -1 | -1 | 710 | -1 | 779 | 4747 | 20680 | 6185 | 438 |
| 9552 1 | -1 | -1 | 2361 | -1 | 789 | 3445 | 19335 | 6299 | 439 |
| 9553 1 | -1 | -1 | 696 | -1 | 877 | 4483 | 17952 | 6460 | 440 |
| 9554 1 | -1 | -1 | 629 | -1 | 1018 | 4890 | 19718 | 6620 | 441 |
| 9555 1 | -1 | -1 | 661 | -1 | 995 | 5548 | 20510 | 6790 | 442 |
| 9556 1 | -1 | -1 | 2087 | -1 | 902 | 3388 | 20810 | 6962 | 443 |
| 9557 1 | -1 | -1 | 633 | -1 | 385 | 4147 | -1 | 7137 | 444 |
| 9558 1 | -1 | -1 | 642 | -1 | 1036 | 5407 | -1 | 7316 | 445 |
| 9559 1 | -1 | -1 | 312 | -1 | 518 | 2414 | -1 | 7500 | 446 |
| 9560 1 | -1 | -1 | 554 | -1 | -1 | 5016 | -1 | 7689 | 447 |
| 9561 1 | -1 | -1 | 756 | -1 | 926 | 6080 | 15129 | 7858 | 448 |
| 9562 1 | -1 | -1 | 657 | -1 | 920 | 5016 | 14690 | 8029 | 449 |
| 9563 1 | -1 | -1 | 651 | -1 | 963 | 5828 | -1 | 8217 | 450 |
| 9564 1 | -1 | -1 | 489 | -1 | 772 | 5421 | -1 | 8492 | 451 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 9565 | , | -1 | -1 | 603 | -1 | 1011 | 6453 | -1 | 8710 | 452 |
| 9566 | 1 | -1 | -1 | 541 | -1 | 893 | 4021 | -1 | 8920 | 453 |
| 9567 | 1 | -1 | -1 | 640 | -1 | 842 | 4140 | -1 | 9140 | 454 |
| 9568 | 1 | -1 | -1 | 711 | -1 | 684 | 4105 | -1 | 9350 | 455 |
| 9569 | 1 | -1 | -1 | 652 | -1 | 542 | 4450 | -1 | 9570 | 456 |
| 9570 | 1 | -1 | -1 | 587 | -1 | 418 | 4737 | -1 | 9720 | 457 |
| 9571 | 1 | -1 | -1 | 763 | -1 | 474 | 4857 | -1 | 9880 | 458 |
| 9572 | 1 | -1 | -1 | 823 | -1 | 542 | -1 | 6313 | 10040 | 459 |
| 9573 | 1 | -1 | -1 | 710 | -1 | 583 | -1 | 5958 | 10230 | 460 |
| 9574 | 1 | -1 | -1 | 426 | -1 | 723 | -1 | 5606 | 10430 | 461 |
| 10052 | 1 | 563 | -1 | -1 | -1 | 2634 | 126 | 6667 | 8000 | 464 |
| 10053 | 1 | 491 | -1 | -1 | -1 | 3449 | 182 | 8688 | 8261 | 465 |
| 10054 | 1 | 637 | -1 | -1 | -1 | 5760 | 250 | 10845 | 8617 | 466 |
| 10055 | 1 | 942 | -1 | -1 | -1 | 5865 | 192 | 12708 | 8907 | 467 |
| 10056 | 1 | 947 | -1 | -1 | -1 | 6886 | 317 | 12782 | 9240 | 468 |
| 10057 | 1 | 921 | -1 | -1 | -1 | 5719 | 209 | 12098 | 9506 | 469 |
| 10058 | 1 | 1022 | -1 | -1 | -1 | 6545 | 226 | 12516 | 9851 | 470 |
| 10059 | 1 | 1199 | -1 | -1 | -1 | 6616 | 303 | 13180 | 10232 | 471 |
| 10060 | 1 | 1440 | -1 | -1 | -1 | 7734 | 260 | 13685 | 10612 | 472 |
| 10061 | 1 | 1511 | -1 | -1 | -1 | 8086 | 337 | 15549 | 10971 | 473 |
| 10062 | 1 | 1556 | -1 | -1 | -1 | 7827 | 406 | 16410 | 11349 | 474 |
| 10063 | 1 | 1702 | -1 | -1 | -1 | 8074 | 465 | 18274 | 11696 | 475 |
| 10064 | 1 | 1753 | -1 | -1 | -1 | 8435 | 319 | 18659 | 12070 | 476 |
| 1006501 | 2042 | -1 | -1 | -1 | 8927 | 277 | 18262 | 12427 | | 477 |
| 1006601 | 2345 | -1 | -1 | -1 | 9210 | 318 | 17161 | 12784 | | 478 |
| 1006701 | 2419 | -1 | -1 | -1 | 9204 | 313 | 14101 | 13141 | | 479 |
| 1006801 | 2469 | -1 | -1 | -1 | 8763 | 466 | 13840 | 13498 | | 480 |
| 1006901 | 3027 | -1 | -1 | -1 | 9768 | 375 | 15589 | 13855 | | 481 |
| 10538 | 1 | -1 | -1 | 2700 | -1 | 14083 | 2317 | 4257 | 8736 | 487 |
| 10539 | 1 | -1 | -1 | 2922 | -1 | 14205 | 3101 | 6128 | 8915 | 488 |
| 10540 | 1 | -1 | -1 | 2450 | -1 | 13352 | 2924 | 6026 | 9094 | 489 |
| 10541 | 1 | -1 | -1 | 2841 | -1 | 14229 | 2691 | 5449 | 9299 | 490 |
| 10542 | 1 | -1 | -1 | 2599 | -1 | 14195 | 3487 | 6096 | 9504 | 491 |
| 10543 | 1 | -1 | -1 | 2453 | -1 | 13679 | 3763 | 7402 | 9716 | 492 |
| 10544 | 1 | -1 | -1 | 2495 | -1 | 14964 | 3617 | 9139 | 9932 | 493 |
| 10545 | 1 | -1 | -1 | 2687 | -1 | 16189 | 3533 | 9973 | 10153 | 494 |
| 10546 | 1 | -1 | -1 | 3321 | -1 | 20668 | 4418 | 12030 | 10380 | 495 |
| 10547 | 1 | -1 | -1 | 3787 | -1 | 21884 | 4704 | 11916 | 10611 | 496 |
| 10548 | 1 | -1 | -1 | 4267 | -1 | 20184 | 5379 | 10064 | 10848 | 497 |
| 10549 | 1 | -1 | -1 | 4967 | -1 | 18056 | 4866 | 8807 | 11089 | 498 |
| 10550 | 1 | -1 | -1 | 6319 | -1 | 18371 | 3860 | 10639 | 11336 | 499 |
| 10551 | 1 | -1 | -1 | 6129 | -1 | 19417 | 6661 | 11662 | 11589 | 500 |
| 10552 | 1 | -1 | -1 | 6881 | -1 | 21808 | 6672 | 11338 | 11847 | 501 |
| 10553 | 1 | -1 | -1 | 7742 | -1 | 25304 | 7214 | 12420 | 12070 | 502 |
| 10554 | 1 | -1 | -1 | 5919 | -1 | 24509 | 7468 | 14110 | 12340 | 503 |
| 10555 | 1 | -1 | -1 | 8342 | -1 | 30469 | 9908 | 18504 | 13170 | 504 |
| 10556 | 1 | -1 | -1 | 8141 | -1 | 30945 | 10773 | 20845 | 13590 | 505 |
| 10557 | 1 | -1 | -1 | 6525 | -1 | 28259 | 9908 | 22085 | 14030 | 506 |
| 10558 | 1 | -1 | -1 | 7797 | -1 | 30624 | 16440 | 23168 | 14480 | 507 |
| 10559 | 1 | -1 | -1 | 6611 | -1 | 31936 | 17168 | 23220 | 14940 | 508 |
| 10560 | 1 | -1 | -1 | 5981 | -1 | 31783 | 16113 | 24517 | 15420 | 509 |
| 10561 | 1 | -1 | -1 | 5497 | -1 | 33080 | 16105 | 23806 | 15910 | 510 |
| 10562 | 1 | -1 | -1 | 7775 | -1 | 42085 | 18927 | 27775 | 16420 | 511 |
| 10563 | 1 | -1 | -1 | 7862 | -1 | 35633 | 18535 | 27993 | 16940 | 512 |
| 10564 | 1 | -1 | -1 | 8210 | -1 | 36902 | 19602 | 28431 | 17480 | 513 |
| 10565 | 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 514 |
| 10566 | 1 | -1 | -1 | 9132 | -1 | 25329 | 29048 | 28898 | 18620 | 515 |
| 10567 | 1 | -1 | -1 | 10949 | -1 | 28397 | 32229 | 34211 | 19220 | 516 |
| 12061 | 1 | 75 | -1 | -1 | 151 | -1 | 1769 | 1641 | 580 | 535 |
| 12062 | 1 | 41 | -1 | -1 | 172 | -1 | 1320 | 1503 | 592 | 536 |
| 12063 | 1 | 180 | -1 | -1 | 148 | -1 | 1046 | 1581 | 590 | 537 |
| 12064 | 1 | 231 | -1 | -1 | 50 | -1 | 1011 | 1475 | 594 | 538 |
| 12065 | 1 | 41 | -1 | -1 | 74 | -1 | 553 | 1198 | 598 | 539 |
| 12066 | 1 | 43 | -1 | -1 | 109 | -1 | 399 | 1431 \ | 607 | 540 |
| 12067 | 1 | 45 | -1 | -1 | 85 | -1 | 350 | 1268 | 614 | 541 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 12069 | 1 | 20 | -1 | -1 | 99 | -1 | 393 | 1110 | 631 | 543 |
| 12070 | 1 | 20 | -1 | -1 | 71 | -1 | 373 | 1209 | 642 | 544 |
| 13021 | 1 | -1 | -1 | -1 | 1262 | 938 | -1 | 30249 | 3279 | 555 |
| 13022 | 1 | -1 | -1 | -1 | 1190 | 1092 | -1 | 28299 | 3315 | 556 |
| 13023 | 1 | -1 | -1 | -1 | 1191 | 1135 | -1 | 30804 | 3351 | 557 |
| 13024 | 1 | -1 | -1 | -1 | 1306 | 1329 | -1 | 32804 | 3387 | 558 |
| 13025 | 1 | -1 | -1 | -1 | 1551 | 1371 | -1 | 38244 | 3425 | 559 |
| 13026 | 1 | -1 | -1 | -1 | 1496 | 1244 | -1 | 41630 | 3448 | 560 |
| 13027 | 1 | -1 | -1 | -1 | 1345 | 1272 | -1 | 46136 | 3471 | 561 |
| 13028 | 1 | -1 | -1 | -1 | 1595 | 1276 | -1 | 51259 | 3494 | 562 |
| 13029 | 1 | -1 | -1 | -1 | 1607 | 1192 | -1 | 48840 | 3517 | 563 |
| 13030 | 1 | -1 | -1 | -1 | 1570 | 1293 | -1 | 54094 | 3542 | 564 |
| 13031 | 1 | -1 | -1 | -1 | 1635 | 1275 | -1 | 53763 | 3573 | 565 |
| 13032 | 1 | -1 | -1 | -1 | 2028 | 1359 | -1 | 55336 | 3604 | 566 |
| 13033 | 1 | 20 | -1 | -1 | 495 | 1376 | 55 | 59456 | 3635 | 567 |
| 13034 | 1 | 16 | -1 | -1 | 747 | 1484 | 40 | 61014 | 3666 | 568 |
| 13035 | 1 | 19 | -1 | -1 | 1047 | 1390 | 48 | 59195 | 3695 | 569 |
| 13036 | 1 | 29 | -1 | -1 | 877 | 1568 | 34 | 59104 | 3722 | 570 |
| 13037 | 1 | 20 | -1 | -1 | 1058 | 1535 | 30 | 59694 | 3749 | 571 |
| 13038 | 1 | 15 | -1 | -1 | 873 | 1446 | 43 | 60437 | 3776 | 572 |
| 13039 | 1 | 11 | -1 | -1 | 1009 | 1341 | 32 | 61047 | 3803 | 573 |
| 13040 | 1 | 20 | -1 | -1 | 484 | 1304 | 48 | 77422 | 3832 | 574 |
| 13041 | 1 | 15 | -1 | -1 | 633 | 1614 | 102 | 109252 | 3868 | 575 |
| 13042 | 1 | 21 | -1 | -1 | 930 | 1934 | 110 | 127485 | 3903 | 576 |
| 13043 | 1 | 13 | -1 | -1 | 793 | 2338 | 197 | 137371 | 3949 | 577 |
| 13044 | 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 578 |
| 13045 | 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 579 |
| 13046 | 1 | 51 | -1 | -1 | 773 | 1497 | 339 | 97226 | 4101 | 580 |
| 13047 | 1 | 53 | -1 | -1 | 753 | 1472 | 298 | 93402 | 4146 | 581 |
| 13048 | 1 | 47 | -1 | -1 | 944 | 1609 | 223 | 93543 | 4190 | 582 |
| 13049 | 1 | 67 | -1 | -1 | 1000 | 1557 | 254 | 85562 | 4231 | 583 |
| 13050 | 1 | 65 | -1 | -1 | 1328 | 1613 | 189 | 81690 | 4270 | 584 |
| 13051 | 1 | 58 | -1 | -1 | 1501 | 1638 | 166 | 95699 | 4304 | 585 |
| 13052 | 1 | 55 | -1 | -1 | 1499 | 1653 | 158 | 90393 | 4334 | 586 |
| 13053 | 1 | 82 | -1 | -1 | 1426 | 1719 | 179 | 86142 | 4369 | 587 |
| 13054 | 1 | 46 | -1 | -1 | 1354 | 1838 | 106 | 80686 | 4406 | 588 |
| 13055 | 1 | 50 | -1 | -1 | 1600 | 1289 | 116 | 85367 | 4439 | 589 |
| 13056 | 1 | 61 | -1 | -1 | 1350 | 1649 | 102 | 83832 | 4466 | 590 |
| 13057 | 1 | 59 | -1 | -1 | 1267 | 1694 | 125 | 87833 | 4488 | 591 |
| 13058 | 1 | 56 | -1 | -1 | 1162 | 1839 | 154 | 87819 | 4515 | 592 |
| 13059 | 1 | 38 | -1 | -1 | 1336 | 1944 | 113 | 91016 | 4547 | 593 |
| 13060 | 1 | 38 | -1 | -1 | 2884 | 1632 | 344 | 57164 | 4581 | 594 |
| 13061 | 1 | 34 | -1 | -1 | 2751 | 1572 | 156 | 60066 | 4610 | 595 |
| 13062 | 1 | 50 | -1 | -1 | 189 | 1501 | 168 | 64473 | 4647 | 596 |
| 13063 | 1 | 62 | -1 | -1 | 173 | 1621 | 184 | 70479 | 4684 | 597 |
| 13064 | 1 | 35 | -1 | -1 | 259 | 1799 | 227 | 72336 | 4720 | 598 |
| 13065 | 1 | 49 | -1 | -1 | 162 | 1944 | 222 | 74916 | 4760 | 599 |
| 13066 | 1 | 32 | -1 | -1 | 215 | 1962 | 230 | 76057 | 4800 | 600 |
| 13067 | 1 | 55 | -1 | -1 | 203 | 1892 | 266 | 86840 | 4840 | 601 |
| 13068 | 1 | 54 | -1 | -1 | 217 | 1999 | 342 | 98868 | 4860 | 602 |
| 13069 | 1 | 32 | -1 | -1 | 236 | 2239 | 309 | 106751 | 4890 | 603 |
| 14053 | 1 | 2307 | -1 | -1 | 320 | -1 | 683 | -1 | 22062 | 613 |
| 14054 | 1 | 2231 | -1 | -1 | 283 | -1 | 541 | -1 | 22651 | 614 |
| 14055 | 1 | 2128 | -1 | -1 | 299 | -1 | 439 | -1 | 23063 | 615 |
| 14056 | 1 | 2243 | -1 | -1 | 177 | -1 | 410 | -1 | 23643 | 616 |
| 14057 | 1 | 1808 | -1 | -1 | 166 | -1 | 454 | -1 | 24179 | 617 |
| 14058 | 1 | 3090 | -1 | -1 | 206 | -1 | 446 | -1 | 24666 | 618 |
| 14059 | 1 | 2843 | -1 | -1 | 180 | -1 | 394 | -1 | 25324 | 619 |
| 14060 | 1 | 2269 | -1 | -1 | 194 | -1 | 419 | -1 | 25951 | 620 |
| 14061 | 1 | 2116 | -1 | -1 | 134 | -1 | 321 | -1 | 26587 | 621 |
| 14062 | 1 | 1521 | -1 | -1 | 111 | -1 | 166 | -1 | 27243 | 622 |
| 14063 | 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 623 |
| 14064 | 1 | 1198 | -1 | -1 | 117 | -1 | 117 | -1 | 28660 | 624 |
| 14065 | 1 | 1262 | -1 | -1 | 120 | -1 | 120 | 58248 | 29390 | 625 |
| 14066 | 1 | 1160 | -1 | -1 | 366 | -1 | 92 | 44266 | 30140 | 626 |
| 14067 | 1 | 1152 | -1 | -1 | 156 | -1 | 125 | 39813 | 30910 | 627 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 14068 | 1 | 1541 | -1 | -1 | 160 | -1 | 193 | 46183 | 31690 | 628 |
| 14069 | 1 | 1446 | -1 | -1 | 193 | -1 | 257 | 49289 | 32500 | 629 |
| 14070 | 1 | 1228 | -1 | -1 | 166 | -1 | 232 | 45170 | 33330 | 630 |
| 14534 | 1 | 594 | -1 | -1 | -1 | 2066 | 350 | 833 | 1515 | 634 |
| 14535 | 1 | 565 | -1 | -1 | -1 | 1866 | 219 | 770 | 1531 | 635 |
| 14536 | 1 | 715 | -1 | -1 | -1 | 2449 | 198 | 496 | 1551 | 636 |
| 14537 | 1 | 771 | -1 | -1 | -1 | 2474 | 309 | 553 | 1571 | 637 |
| 14538 | 1 | 624 | -1 | -1 | -1 | 2319 | 244 | 546 | 1591 | 638 |
| 14539 | 1 | 573 | -1 | -1 | -1 | 2269 | 209 | 493 | 1611 | 639 |
| 14540 | 1 | 454 | -1 | -1 | -1 | 2183 | 261 | 667 | 1633 | 640 |
| 14541 | 1 | 414 | -1 | -1 | -1 | 2275 | 281 | 564 | 1654 | 641 |
| 14542 | 1 | 570 | -1 | -1 | -1 | 2701 | 321 | 765 | 1675 | 642 |
| 14543 | 1 | 498 | -1 | -1 | -1 | 2656 | 378 | 1050 | 1697 | 643 |
| 14544 | 1 | 672 | -1 | -1 | -1 | 3038 | 362 | 1192 | 1719 | 644 |
| 14545 | 1 | 687 | -1 | -1 | -1 | 2370 | 521 | 1300 | 1742 | 645 |
| 14546 | 1 | 449 | -1 | -1 | -1 | 2321 | 329 | 1004 | 1764 | 646 |
| 14547 | 1 | 553 | -1 | -1 | -1 | 2742 | 301 | 970 | 1788 | 647 |
| 14548 | 1 | 649 | -1 | -1 | -1 | 3122 | 341 | 1061 | 1811 | 648 |
| 14549 | 1 | 732 | -1 | -1 | -1 | 3090 | 359 | 934 | 1835 | 649 |
| 14550 | 1 | 673 | -1 | -1 | -1 | 3450 | 348 | 1310 | 1868 | 650 |
| 14551 | 1 | 814 | -1 | -1 | -1 | 4226 | 433 | 1482 | 1920 | 651 |
| 14552 | 1 | 812 | -1 | -1 | -1 | 4397 | 355 | 1412 | 1986 | 652 |
| 14553 | 1 | 798 | -1 | -1 | -1 | 4691 | 388 | 1285 | 2054 | 653 |
| 14554 | 1 | 775 | -1 | -1 | -1 | 5060 | 389 | 1406 | 2122 | 654 |
| 14555 | 1 | 805 | -1 | -1 | -1 | 4696 | 404 | 1374 | 2135 | 655 |
| 14556 | 1 | 932 | -1 | -1 | -1 | 4916 | 294 | 1149 | 2196 | 656 |
| 14557 | 1 | 691 | -1 | -1 | -1 | 4201 | 300 | 1146 | 2257 | 657 |
| 14558 | 1 | 774 | -1 | -1 | -1 | 4478 | 367 | 1381 | 2321 | 658 |
| 14559 | 1 | 754 | -1 | -1 | -1 | 4317 | 428 | 1601 | 2386 | 659 |
| 14560 | 1 | 763 | -1 | -1 | -1 | 4098 | 473 | 1385 | 2454 | 660 |
| 14561 | 1 | 893 | -1 | -1 | -1 | 4559 | 441 | 1296 | 2526 | 661 |
| 14562 | 1 | 869 | -1 | -1 | -1 | 4501 | 368 | 1255 | 2627 | 662 |
| 14563 | 1 | 862 | -1 | -1 | -1 | 4207 | 447 | 1416 | 2721 | 663 |
| 14564 | 1 | 827 | -1 | -1 | -1 | 4486 | 439 | 1226 | 2824 | 664 |
| 14565 | 1 | 861 | -1 | -1 | -1 | 4284 | 422 | 1237 | 2930 | 665 |
| 14566 | 1 | 844 | -1 | -1 | -1 | 3945 | 426 | 1563 | 3040 | 666 |
| 14567 | 1 | 860 | -1 | -1 | -1 | 4231 | 528 | 1474 | 3150 | 667 |
| 14568 | 1 | 790 | -1 | -1 | -1 | 4650 | 616 | 1475 | 3270 | 668 |
| 150 0 | 1 | 136 | 176 | -1 | 231 | 1260 | 256 | 59736 | 32173 | 671 |
| 150 1 | 1 | 161 | 180 | -1 | 236 | 1307 | 234 | 60863 | 32527 | 672 |
| 150 2 | 1 | 149 | 181 | -1 | 218 | 1295 | 274 | 62134 | 32881 | 673 |
| 150 3 | 1 | 171 | 141 | -1 | 190 | 1221 | 241 | 63613 | 33235 | 674 |
| 150 4 | 1 | 160 | 156 | -1 | 213 | 1096 | 251 | 68837 | 33589 | 675 |
| 150 5 | 1 | 137 | 150 | -1 | 172 | 1171 | 223 | 70177 | 33943 | 676 |
| 150 6 | 1 | 134 | 129 | -1 | 203 | 1311 | 242 | 67012 | 34297 | 677 |
| 150 7 | 1 | 132 | 141 | -1 | 185 | 1433 | 232 | 72776 | 34651 | 678 |
| 150 8 | 1 | 159 | 162 | -1 | 202 | 1332 | 310 | 76837 | 35005 | 679 |
| 150 9 | 1 | 161 | 139 | -1 | 172 | 1369 | 226 | 75927 | 35359 | 680 |
| 15010 | 1 | 148 | 140 | -1 | 156 | 1325 | 211 | 73916 | 35713 | 681 |
| 15011 | 1 | 144 | 147 | -1 | 146 | 1368 | 198 | 69345 | 36070 | 682 |
| 15012 | 1 | 152 | 159 | -1 | 175 | 1359 | 195 | 73841 | 36240 | 683 |
| 15013 | 1 | 178 | 154 | -1 | 177 | 1222 | 195 | 69942 | 36410 | 684 |
| 15014 | 1 | 141 | 128 | -1 | 154 | 1084 | 133 | 63657 | 36580 | 685 |
| 15015 | 1 | 130 | 145 | -1 | 124 | 769 | 85 | 57766 | 36750 | 686 |
| 15016 | 1 | 146 | 111 | -1 | 98 | 572 | 114 | 60768 | 36920 | 687 |
| 15017 | 1 | 127 | 99 | -1 | 74 | 388 | 134 | 67104 | 37090 | 688 |
| 15018 | 1 | 131 | 73 | -1 | 78 | 420 | 100 | 65296 | 37260 | 689 |
| 15019 | 1 | 176 | 122 | -1 | 121 | 761 | 203 | 60673 | 37430 | 690 |
| 15020 | 1 | 179 | 134 | -1 | 130 | 826 | 235 | 69408 | 37596 | 691 |
| 15021 | 1 | 138 | 113 | -1 | 125 | 742 | 211 | 70637 | 37864 | 692 |
| 15022 | 1 | 145 | 98 | -1 | 118 | 635 | 164 | 70923 | 38132 | 693 |
| 15023 | 1 | 150 | 109 | -1 | 110 | 646 | 151 | 73145 | 38400 | 694 |
| 15024 | 1 | 150 | 110 | -1 | 116 | 646 | 122 | 74742 | 38668 | 695 |
| 15025 | 1 | 160 | 133 | -1 | 94 | 774 | 136 | 75839 | 38935 | 696 |
| 15026 | 1 | 154 | 128 | -1 | 125 | 1067 | 120 | 90910 | 39108 | 697 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 15028 1 | 136 | 122 | -1 | 107 | 1264 | 128 | 84566 | 39454 | | 699 |
| 15029 1 | 131 | 157 | -1 | 89 | 1342 | 167 | 87156 | 39627 | | 700 |
| 15030 1 | 122 | 162 | -1 | 89 | 1470 | 217 | 94716 | 39801 | | 701 |
| 15031 1 | 138 | 124 | -1 | 90 | 1374 | 208 | 100718 | 39970 | | 702 |
| 15032 1 | 125 | 141 | -1 | 72 | 1277 | 342 | 137980 | 40139 | | 703 |
| 15033 1 | 141 | 192 | -1 | 75 | 1483 | 219 | 158711 | 40308 | | 704 |
| 15034 1 | 141 | 191 | -1 | 84 | 1609 | 215 | 164488 | 40477 | | 705 |
| 15035 1 | 120 | 171 | -1 | 104 | 1765 | 182 | 165003 | 40645 | | 706 |
| 15036 1 | 145 | 197 | -1 | 99 | 1807 | 189 | 176653 | 40888 | | 707 |
| 15037 1 | 114 | 171 | -1 | 108 | 1983 | 209 | 188962 | 41131 | | 708 |
| 15038 1 | 116 | 172 | -1 | 99 | 2020 | 287 | 199951 | 41374 | | 709 |
| 15039 1 | 156 | 165 | -1 | 109 | 2179 | 265 | 219478 | 41617 | | 710 |
| 15040 1 | 123 | 134 | -1 | 125 | 1794 | 342 | 225671 | 41862 | | 711 |
| 15041 1 | 146 | 145 | -1 | 169 | 1931 | 483 | 268738 | 41880 | | 712 |
| 15042 1 | 209 | 158 | -1 | 200 | 2035 | 685 | 267789 | 41897 | | 713 |
| 15043 1 | 174 | 114 | -1 | 257 | 2303 | 730 | 272186 | 42259 | | 714 |
| 15044 1 | 166 | 147 | -1 | 416 | 2749 | 821 | 297930 | 42449 | | 715 |
| 15045 1 | 218 | 217 | -1 | 377 | 3292 | 1033 | 323310 | 42636 | | 716 |
| 15046 1 | 148 | 151 | -1 | 251 | 3020 | 921 | 310650 | 42700 | | 717 |
| 15047 1 | 175 | 138 | -1 | 240 | 3495 | 979 | 330918 | 43050 | | 718 |
| 15048 1 | 171 | 138 | -1 | 252 | 4224 | 1101 | 349358 | 43502 | | 719 |
| 15049 1 | 136 | 131 | -1 | 233 | 4376 | 980 | 301591 | 43785 | | 720 |
| 15050 1 | 139 | 176 | -1 | 314 | 5258 | 1021 | 301075 | 43830 | | 721 |
| 15051 1 | 132 | 176 | -1 | 335 | 5619 | 800 | 359407 | 43815 | | 722 |
| 15052 1 | 146 | 233 | -1 | 260 | 5980 | 1002 | 341512 | 43955 | | 723 |
| 15053 1 | 143 | 158 | -1 | 295 | 6187 | 980 | 308578 | 44109 | | 724 |
| 15054 1 | 146 | 138 | -1 | 294 | 6586 | 812 | 285199 | 44274 | | 725 |
| 15055 1 | 135 | 122 | -1 | 340 | 7076 | 823 | 295035 | 44441 | | 726 |
| 15056 1 | 156 | 142 | -1 | 329 | 8433 | 965 | 323561 | 44821 | | 727 |
| 15057 1 | 166 | 147 | -1 | 408 | 9774 | 1194 | 360985 | 45043 | | 728 |
| 1505801 | 137 | 108 | -1 | 391 | 10945 | 1692 | 409388 | 45244 | | 729 |
| 15059 1 | 149 | 92 | -1 | 512 | 12707 | 1900 | 445 | 45504 | | 730 |
| 15060 1 | 153 | 108 | -1 | 515 | 14391 | 2014 | 489258 | 45662 | | 731 |
| 15061 1 | 147 | 105 | -1 | 503 | 16197 | 2349 | 531430 | 46308 | | 732 |
| 15062 1 | 159 | 114 | -1 | 473 | 16430 | 2517 | 588566 | 46807 | | 733 |
| 15063 1 | 153 | 135 | -1 | 422 | 18655 | 2483 | 635627 | 47124 | | 734 |
| 15064 1 | 170 | 108 | -1 | 517 | 21868 | 3066 | 704116 | 47340 | | 735 |
| 15065 1 | 171 | 134 | -1 | 618 | 23876 | 3736 | 744155 | 47690 | | 736 |
| 1506601 | 169 | 172 | -1 | 644 | 25027 | 4474 | 775990 | 47990 | | 737 |
| 15067 1 | 200 | 193 | -1 | 702 | 27123 | 4564 | 784093 | 48300 | | 738 |
| 15068 1 | 203 | 196 | -1 | 829 | 30094 | 4815 | 826311 | 48590 | | 739 |
| 15069 1 | 182 | 188 | -1 | 869 | 35928 | 6041 | 876710 | 48830 | | 740 |
| 15070 1 | 186 | 181 | -1 | 884 | 39266 | 6273 | 914723 | 48990 | | 741 |
| 15071 1 | 247 | 193 | -1 | 784 | 45165 | 7465 | 962992 | 48820 | | 742 |
| 15072 1 | 251 | 204 | -1 | 893 | 50519 | 8126 | -1 | 49030 | | 743 |
| 16062 1 | 13 | -1 | -1 | 248 | -1 | 372 | 539 | 427 | | 755 |
| 16063 1 | 9 | -1 | -1 | 190 | -1 | 327 | 1443 | 441 | | 756 |
| 16064 1 | 14 | -1 | -1 | 78 | -1 | 306 | 799 | 456 | | 757 |
| 16065 1 | 5 | -1 | -1 | 70 | -1 | 158 | 673 | 464 | | 758 |
| 16066 1 | 9 | -1 | -1 | 80 | -1 | 207 | 714 | 469 | | 759 |
| 16067 1 | 15 | -1 | -1 | 75 | -1 | 387 | 533 | 502 | | 760 |
| 16068 1 | 10 | -1 | -1 | 118 | -1 | 51 | 159 | 512 | | 761 |
| 16069 1 | 11 | -1 | -1 | 116 | -1 | 437 | 1201 | 526 | | 762 |
| 16070 1 | 16 | -1 | -1 | 178 | -1 | 619 | 1773 | 524 | | 763 |
| 1651401 | 61 | 33 | -1 | -1 | 1358 | 61 | 1524 | 3122 | | 767 |
| 1651501 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | | 768 |
| 1651601 | 38 | 37 | -1 | -1 | 749 | 33 | 2068 | 3125 | | 769 |
| 1651701 | 32 | 31 | -1 | -1 | 832 | 40 | 3938 | 3127 | | 770 |
| 1651801 | 42 | 86 | -1 | -1 | 248 | 33 | 3902 | 3129 | | 771 |
| 1651901 | 62 | 38 | -1 | -1 | 502 | 42 | 5020 | 3131 | | 772 |
| 1652001 | 69 | 50 | -1 | -1 | 747 | 50 | 2978 | 3133 | | 773 |
| 1652101 | 121 | 47 | -1 | -1 | 820 | 65 | 2454 | 3167 | | 774 |
| 1652201 | 106 | 46 | -1 | -1 | 921 | 35 | 1735 | 3201 | | 775 |
| 1652301 | 103 | 60 | -1 | -1 | 869 | 56 | 1445 | 3235 | | 776 |
| 1652401 | 95 | 45 | -1 | -1 | 1100 | 54 | 1335 | 3269 | | 777 |
| 1652501 | 109 | 62 | -1 | -1 | 1395 | 61 | 1686 | 3304 | | 778 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1652601 | | 91 | 55 | -1 | -1 | 1385 | 46 | 1719 | 3333 | 779 |
| 16527 1 | | 51 | 224 | -1 | 77 | 1271 | 298 | 3970 | 3362 | 780 |
| 16528 1 | | 74 | 262 | -1 | 77 | 1349 | 277 | 3458 | 3391 | 781 |
| 16529 1 | | 55 | 302 | -1 | 94 | 1511 | 276 | 4333 | 3420 | 782 |
| 16530 1 | | 60 | 275 | -1 | 104 | 1675 | 268 | 4633 | 3449 | 783 |
| 16531 1 | | 53 | 251 | -1 | 80 | 1747 | 308 | 5030 | 3474 | 784 |
| 16532 1 | | 71 | 263 | -1 | 77 | 1720 | 282 | 6698 | 3499 | 785 |
| 16533 1 | | 44 | 234 | -1 | 76 | 1853 | 286 | 6399 | 3524 | 786 |
| 16534 1 | | 54 | 171 | -1 | 93 | 1718 | 231 | 5384 | 3549 | 787 |
| 16535 1 | | 59 | 163 | -1 | 90 | 1604 | 197 | 5000 | 3576 | 788 |
| 16536 1 | | 60 | 131 | -1 | 91 | 1592 | 197 | 4511 | 3600 | 789 |
| 16537 1 | | 57 | 135 | -1 | 88 | 1580 | 197 | 4199 | 3624 | 790 |
| 16538 1 | | 50 | 120 | -1 | 86 | 1350 | 148 | 4178 | 3648 | 791 |
| 16539 1 | | 48 | 114 | -1 | 80 | 1101 | 120 | 3599 | 3672 | 792 |
| 16540 1 | | 38 | 114 | -1 | 47 | 872 | 282 | 5868 | 3698 | 793 |
| 16541 1 | | 39 | 116 | -1 | 41 | -1 | 328 | 6712 | 3703 | 794 |
| 16542 1 | | 38 | 107 | -1 | 48 | -1 | 461 | 9965 | 3708 | 795 |
| 16543 1 | | 61 | 107 | -1 | 70 | -1 | 580 | 8574 | 3721 | 796 |
| 16544 1 | | 54 | 126 | -1 | 86 | -1 | 901 | 11045 | 3735 | 797 |
| 16545 1 | | 84 | 186 | -1 | 123 | -1 | 1730 | 21747 | 3758 | 798 |
| 16546 1 | | 51 | 148 | -1 | 135 | -1 | 1097 | 16051 | 3806 | 799 |
| 16547 1 | | 63 | 115 | -1 | 124 | 1261 | 696 | 13456 | 3859 | 800 |
| 16548 1 | | 41 | 143 | -1 | 79 | 1038 | 469 | 9570 | 3912 | 801 |
| 16549 1 | | 38 | 95 | -1 | 171 | 969 | 332 | 6526 | 3963 | 802 |
| 16550 1 | | 29 | 108 | -1 | 158 | 956 | 259 | 5630 | 4009 | 803 |
| 16551 1 | | 34 | 77 | -1 | 183 | 940 | 193 | 4897 | 4047 | 804 |
| 16552 1 | | 38 | 94 | -1 | 79 | 937 | 188 | 2848 | 4091 | 805 |
| 16553 1 | | 50 | 74 | -1 | 172 | 925 | 211 | 5337 | 4141 | 806 |
| 16554 1 | | 40 | 76 | -1 | 187 | 776 | 221 | 4651 | 4190 | 807 |
| 16555 1 | | 39 | 71 | -1 | 163 | 802 | 186 | 4626 | 4238 | 808 |
| 16556 1 | | 23 | 80 | -1 | 118 | 643 | 186 | 5556 | 4282 | 809 |
| 16557 1 | | 25 | 74 | -1 | 161 | 634 | 204 | 7325 | 4324 | 810 |
| 16558 1 | | 33 | 63 | -1 | 158 | 677 | 226 | 7711 | 4360 | 811 |
| 16559 1 | | 12 | 67 | -1 | 181 | 719 | 254 | 7972 | 4395 | 812 |
| 16560 1 | | 37 | 72 | -1 | 222 | 674 | 294 | 7626 | 4430 | 813 |
| 16561 1 | | 18 | 79 | -1 | 211 | 631 | 250 | 6162 | 4467 | 814 |
| 16562 1 | | 21 | 88 | -1 | 186 | 701 | 269 | 8899 | 4505 | 815 |
| 16563 1 | | 19 | 75 | -1 | 237 | 681 | 351 | 10909 | 4543 | 816 |
| 16564 1 | | 16 | 71 | -1 | 299 | 692 | 315 | 12561 | 4586 | 817 |
| 16565 1 | | 20 | 59 | -1 | 320 | 742 | 334 | 13802 | 4610 | 818 |
| 16566 1 | | 14 | 80 | -1 | 371 | 795 | 444 | 12967 | 4640 | 819 |
| 16567 1 | | 12 | 80 | -1 | 386 | 774 | 607 | 16917 | 4670 | 820 |
| 16568 1 | | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 821 |
| 16569 1 | | 22 | 93 | -1 | 407 | 1111 | 809 | 19154 | 4700 | 822 |
| 16570 1 | | 14 | 42 | -1 | 325 | -1 | 947 | 21234 | 4690 | 823 |
| 17031 1 | | 330 | 2278 | -1 | 253 | 55 | 380 | 47105 | 41190 | 829 |
| 17032 1 | | 358 | 1753 | -1 | 250 | 92 | 165 | 46188 | 41230 | 830 |
| 17033 1 | | 379 | 2324 | -1 | 271 | 88 | 374 | 41379 | 41270 | 831 |
| 17034 1 | | 397 | 2744 | -1 | 297 | 98 | 355 | 38506 | 41310 | 832 |
| 17035 1 | | 414 | 2770 | -1 | 301 | 91 | 322 | 36810 | 41350 | 833 |
| 17036 1 | | 369 | 2389 | -1 | 286 | 117 | 341 | 35512 | 41040 | 834 |
| 17037 1 | | 289 | 2324 | -1 | 274 | 52 | 338 | 35791 | 40730 | 835 |
| 17038 1 | | 328 | 2553 | -1 | 268 | 88 | 221 | 37400 | 40420 | 836 |
| 17039 1 | | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 837 |
| 17040 1 | | 174 | 1707 | -1 | 155 | 42 | 112 | 60438 | 39800 | 838 |
| 17041 1 | | 184 | 1385 | -1 | 249 | 51 | 223 | 128776 | 38750 | 839 |
| 17042 1 | | 185 | 1093 | -1 | 299 | 76 | 278 | 134070 | 38700 | 840 |
| 17043 1 | | 161 | 935 | -1 | 202 | 44 | 333 | 121437 | 38500 | 841 |
| 17044 1 | | 171 | 929 | -1 | 187 | 72 | 373 | 103698 | 38300 | 842 |
| 17045 1 | | 319 | 1137 | -1 | 187 | 81 | 556 | 98759 | 39100 | 843 |
| 17046 1 | | 641 | 1717 | -1 | 318 | 102 | 825 | 122191 | 40318 | 844 |
| 17047 1 | | 668 | 1753 | -1 | 377 | 95 | 1069 | 118225 | 40743 | 845 |
| 17048 1 | | 562 | 1967 | -1 | 527 | 127 | 1345 | 117341 | 41212 | 846 |
| 17049 1 | | 619 | 1805 | -1 | 495 | 140 | 1266 | 87920 | 41602 | 847 |
| 17050 1 | | 461 | 2124 | -1 | 602 | 96 | 1058 | 78312 | 41944 | 848 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17052 | 1 | 277 | 2057 | -1 | 469 | 110 | 616 | 51693 | 42545 | 850 |
| 17053 | 1 | 158 | 1975 | -1 | 415 | 134 | 360 | 34546 | 42860 | 851 |
| 17054 | 1 | 163 | 2186 | -1 | 409 | 157 | 338 | 32846 | 43000 | 852 |
| 17055 | 1 | 153 | 2209 | -1 | 367 | 146 | 285 | 30414 | 43300 | 853 |
| 17056 | 1 | 127 | 2371 | -1 | 369 | 172 | 216 | 30605 | 43843 | 854 |
| 17057 | 1 | 173 | 3176 | -1 | 360 | 139 | 241 | 34073 | 44311 | 855 |
| 17058 | 1 | 217 | 3102 | -1 | 342 | 140 | 218 | 34973 | 44789 | 856 |
| 17059 | 1 | 149 | 2671 | -1 | 313 | 102 | 242 | 33419 | 45240 | 857 |
| 17060 | 1 | 179 | 2753 | -1 | 300 | 85 | 291 | 38030 | 45684 | 858 |
| 17061 | 1 | 182 | 1808 | -1 | 284 | 84 | 248 | 39644 | 46163 | 859 |
| 17062 | 1 | 207 | 3328 | -1 | 323 | 93 | 281 | 42081 | 46998 | 860 |
| 17063 | 1 | 238 | 3602 | -1 | 359 | 134 | 367 | 44859 | 47853 | 861 |
| 17064 | 1 | 238 | 3940 | -1 | 336 | 134 | 475 | 46507 | 48440 | 862 |
| 17065 | 1 | 264 | 4368 | -1 | 418 | 135 | 479 | 50014 | 48760 | 863 |
| 17066 | 1 | 251 | 4590 | -1 | 443 | 134 | 586 | 53685 | 49160 | 864 |
| 17067 | 1 | 231 | 4754 | -1 | 475 | 117 | 436 | 60656 | 49550 | 865 |
| 17068 | 1 | 219 | 4745 | -1 | 381 | 137 | 406 | 61776 | 49810 | 866 |
| 17069 | 1 | 221 | 3306 | -1 | 325 | 150 | 400 | 54971 | 50320 | 867 |
| 17070 | 1 | 199 | 3846 | -1 | 264 | 171 | 335 | 67370 | 50770 | 868 |
| 17071 | 1 | 181 | 4912 | -1 | 163 | 144 | 400 | 73412 | 51250 | 869 |
| 175 0 | 1 | 89 | 162 | -1 | -1 | 93079 | 446 | 94801 | 50106 | 873 |
| 175 1 | 1 | 84 | 158 | -1 | -1 | 98110 | 527 | 101568 | 50875 | 874 |
| 175 2 | 1 | 103 | 179 | -1 | -1 | 97376 | 597 | 103875 | 51644 | 875 |
| 175 3 | 1 | 86 | 188 | -1 | -1 | 96177 | 516 | 100869 | 52413 | 876 |
| 175 4 | 1 | 94 | 179 | -1 | -1 | 98985 | 566 | 98882 | 53182 | 877 |
| 175 5 | 1 | 91 | 180 | -1 | -1 | 97673 | 556 | 100183 | 53951 | 878 |
| 175 6 | 1 | 93 | 168 | -1 | -1 | 97943 | 564 | 104255 | 54720 | 879 |
| 175 7 | 1 | 82 | 190 | -1 | -1 | 94471 | 602 | 105999 | 55489 | 880 |
| 175 8 | 1 | 80 | 210 | -1 | -1 | 97235 | 708 | 116964 | 56258 | 881 |
| 175 9 | 1 | 96 | 193 | -1 | -1 | 93175 | 675 | 115418 | 57027 | 882 |
| 17510 | 1 | 93 | 210 | -1 | -1 | 92193 | 695 | 114207 | 57798 | 883 |
| 17511 | 1 | 93 | 229 | -1 | -1 | 90881 | 662 | 110748 | 58198 | 884 |
| 17512 | 1 | 94 | 229 | -1 | -1 | 96848 | 695 | 118062 | 58598 | 885 |
| 17513 | 1 | 110 | 257 | -1 | -1 | 90890 | 764 | 114707 | 58998 | 886 |
| 17514 | 1 | 82 | 230 | -1 | -1 | 70604 | 687 | 98177 | 59398 | 887 |
| 17515 | 1 | 68 | 102 | -1 | -1 | 33081 | 511 | 91912 | 59798 | 888 |
| 17516 | 1 | 74 | 91 | -1 | -1 | 27905 | 614 | 109332 | 60198 | 889 |
| 17517 | 1 | 71 | 71 | -1 | -1 | 20475 | 435 | 137604 | 60598 | 890 |
| 17518 | 1 | 87 | 91 | -1 | -1 | 23121 | 316 | 161059 | 60998 | 891 |
| 17519 | 1 | 164 | 267 | -1 | -1 | 23092 | 972 | 159765 | 61398 | 892 |
| 17520 | 1 | 209 | 393 | -1 | -1 | 37406 | 1327 | 265331 | 61794 | 893 |
| 17521 | 1 | 243 | 383 | -1 | -1 | 33159 | 1789 | 251912 | 62068 | 894 |
| 17522 | 1 | 200 | 330 | -1 | -1 | 25491 | 1517 | 251529 | 62342 | 895 |
| 17523 | 1 | 139 | 280 | -1 | -1 | 24971 | 999 | 367435 | 62616 | 896 |
| 17524 | 1 | 193 | 409 | -1 | -1 | 25189 | 1155 | 224530 | 62890 | 897 |
| 17525 | 1 | 185 | 385 | -1 | -1 | 28371 | 864 | 112596 | 63166 | 898 |
| 17526 | 1 | 170 | 404 | -1 | -1 | 32146 | 811 | 95347 | 63550 | 899 |
| 17527 | 1 | 124 | 385 | -1 | -1 | 33064 | 707 | 89902 | 63934 | 900 |
| 17528 | 1 | 90 | 317 | -1 | -1 | 32677 | 683 | 86349 | 64318 | 901 |
| 17529 | 1 | 69 | 348 | -1 | -1 | 34950 | 811 | 91109 | 64702 | 902 |
| 17530 | 1 | 90 | 345 | -1 | -1 | 35429 | 1028 | 97596 | 65084 | 903 |
| 17553 | 1 | -1 | -1 | 325 | 4377 | 26830 | 3584 | 544110 | 51227 | 906 |
| 17554 | 1 | -1 | -1 | 390 | 4340 | 26419 | 3540 | 534507 | 51707 | 907 |
| 17555 | 1 | -1 | -1 | 371 | 4574 | 26824 | 3685 | 576619 | 52363 | 908 |
| 17556 | 1 | -1 | -1 | 332 | 4824 | 27986 | 4316 | 622385 | 52995 | 909 |
| 17557 | 1 | -1 | -1 | 326 | 5186 | 28149 | 4471 | 714087 | 53649 | 910 |
| 17558 | 1 | -1 | -1 | 330 | 5426 | 27962 | 5124 | 735679 | 54283 | 911 |
| 17559 | 1 | -1 | -1 | 354 | 6030 | 29161 | 5250 | 781797 | 54882 | 912 |
| 17560 | 1 | -1 | -1 | 365 | 6436 | 29072 | 5790 | 855033 | 55423 | 913 |
| 17561 | 1 | -1 | -1 | 382 | 6630 | 28652 | 6158 | 906094 | 56227 | 914 |
| 17562 | 1 | -1 | -1 | 397 | 6451 | 29210 | 6410 | 908186 | 56947 | 915 |
| 17563 | 1 | -1 | -1 | 442 | 6572 | 30239 | 6721 | 943425 | 57607 | 916 |
| 17564 | 1 | -1 | -1 | 471 | 6159 | 29858 | 7218 | 994714 | 58290 | 917 |
| 17565 | 1 | -1 | -1 | 482 | 5923 | 30403 | 7655 | 1034957 | 59040 | 918 |
| 17566 | 1 | -1 | -1 | 534 | 6060 | 30663 | 9010 | 1140764 | 59680 | 919 |
| 17567 | 1 | -1 | -1 | 599 | 6255 | 31860 | 9784 | 1242510 | 59870 | 920 |

1

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17568 | 1 | -1 | -1 | 539 | 6319 | 32668 | 9737 | 1308067 | 60170 | 921 |
| 17569 | 1 | -1 | -1 | 662 | 6766 | 34955 | 11503 | 1360812 | 60840 | 922 |
| 17570 | 1 | -1 | -1 | 779 | 6889 | 37895 | 13230 | 1549694 | 60650 | 923 |
| 17571 | 1 | -1 | -1 | 666 | 6565 | 35133 | 16531 | 1608645 | 61290 | 924 |
| 17572 | 1 | -1 | -1 | 779 | 7001 | 39218 | 18786 | 1702493 | 61670 | 925 |
| 18055 | 1 | 280 | -1 | -1 | 554 | -1 | 1616 | 13841 | 5830 | 932 |
| 18056 | 1 | 333 | -1 | -1 | 629 | -1 | 1862 | 14857 | 6020 | 933 |
| 18057 | 1 | 261 | -1 | -1 | 601 | -1 | 2096 | 17320 | 6200 | 934 |
| 18058 | 1 | 246 | -1 | -1 | 880 | -1 | 1653 | 17888 | 6390 | •935 |
| 18059 | 1 | 215 | -1 | -1 | 835 | -1 | 1455 | 18271 | 6580 | 936 |
| 18060 | 1 | 246 | -1 | -1 | 864 | -1 | 1233 | 19591 | 6777 | 937 |
| 18061 | 1 | 195 | -1 | -1 | 546 | -1 | 594 | 20473 | 6960 | 938 |
| 18062 | 1 | 183 | -1 | -1 | 469 | -1 | 653 | 23202 | 7148 | 939 |
| 18063 | 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 940 |
| 18064 | 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 941 |
| 18065 | 1 | 161 | -1 | -1 | 469 | -1 | 539 | 28103 | 7712 | 942 |
| 18066 | 1 | 195 | -1 | -1 | 383 | -1 | 654 | 32188 | 7898 | 943 |
| 18067 | 1 | 213 | -1 | -1 | 380 | -1 | -1 | 32996 | 8084 | 944 |
| 18068 | 1 | 240 | -1 | -1 | 373 | -1 | -1 | 33920 | 8270 | 945 |
| 18069 | 1 | 288 | -1 | -1 | 446 | -1 | 738 | 35642 | 8456 | 946 |
| 18070 | 1 | 193 | -1 | -1 | 366 | -1 | 807 | 37175 | 8640 | 947 |
| 19565 | 1 | -1 | 15 | -1 | 2 | 25 | 8 | 535 | 80 | 961 |
| 19566 | 1 | -1 | 7 | -1 | 6 | 26 | 8 | 667 | 80 | 962 |
| 19567 | 1 | -1 | 8 | -1 | 3 | 31 | 18 | 687 | 90 | 963 |
| 19568 | 1 | -1 | 17 | -1 | 6 | 32 | 10 | 929 | 100 | 964 |
| 19569 | 1 | -1 | 15 | -1 | 6 | 31 | 26 | 895 | 100 | 965 |
| 19570 | 1 | -1 | 13 | -1 | 8 | 43 | 10 | 918 | 90 | 966 |
| 19571 | 1 | -1 | 21 | -1 | 14 | 57 | 15 | 887 | 90 | 967 |
| 19572 | 1 | -1 | 29 | -1 | 24 | 103 | 66 | 1147 | 90 | 968 |
| 195730 | 1 | -1 | 28 | -1 | 22 | 85 | 79 | 1246 | 90 | 969 |
| 195740 | 1 | -1 | 33 | -1 | 20 | 95 | 86 | 1422 | 90 | 970 |
| 19061 | 1 | 25 | 8 | -1 | 54 | 146 | 107 | 647 | 583 | 975 |
| 19062 | 1 | 31 | 15 | -1 | 66 | 154 | 169 | 1158 | 598 | 976 |
| 19063 | 1 | 46 | 15 | -1 | 56 | 174 | 264 | 1022 | 610 | 977 |
| 19064 | 1 | 166 | 6 | -1 | 84 | 218 | 267 | 678 | 628 | 978 |
| 19065 | 1 | 43 | 6 | -1 | 96 | 251 | 338 | 794 | 643 | 979 |
| 19066 | 1 | 40 | 1 | -1 | 99 | 241 | 308 | 863 | 658 | 980 |
| 19067 | 1 | 30 | 3 | -1 | 94 | 224 | 252 | 1285 | 673 | 981 |
| 19068 | 1 | 52 | 3 | -1 | 118 | 178 | 299 | 1011 | 688 | 982 |
| 19069 | 1 | 44 | 2 | -1 | 122 | 219 | 459 | 859 | 703 | 983 |
| 19070 | 1 | 47 | 3 | -1 | 148 | 259 | 434 | 966 | 720 | 984 |
| 19071 | 1 | 49 | 6 | -1 | 128 | 290 | 571 | 865 | 740 | 985 |
| 19072 | 1 | 63 | 2 | -1 | 138 | 246 | 452 | 943 | 750 | 986 |
| 20053 | 1 | -1 | -1 | 28 | 3 | 194 | 102 | 11780 | 2250 | 993 |
| 20054 | 1 | -1 | -1 | 38 | 4 | 336 | 109 | 13477 | 2360 | 994 |
| 20055 | 1 | -1 | -1 | 28 | 1 | 316 | 141 | 13261 | 2490 | 995 |
| 20056 | 1 | -1 | -1 | 39 | 3 | 414 | 127 | 14534 | 2615 | 996 |
| 20057 | 1 | -1 | -1 | 17 | 3 | 341 | 122 | 12413 | 2736 | 997 |
| 20058 | 1 | -1 | -1 | 30 | 4 | 432 | 104 | 9665 | 2854 | 998 |
| 20059 | 1 | -1 | -1 | 24 | 1 | 404 | 82 | 9241 | 2967 | 999 |
| 20060 | 1 | -1 | -1 | 30 | 2 | 539 | 89 | 8578 | 3075 | 1000 |
| 20061 | 1 | -1 | -1 | 25 | 1 | 638 | 114 | 9821 | 3178 | 1001 |
| 20062 | 1 | -1 | -1 | 20 | 4 | 675 | 130 | 8902 | 3310 | 1002 |
| 20063 | 1 | -1 | -1 | 25 | 3 | 633 | 153 | 8274 | 3420 | 1003 |
| 20064 | 1 | -1 | -1 | 42 | 2 | 941 | 230 | 8779 | 3500 | 1004 |
| 20065 | 1 | -1 | -1 | 33 | 5 | 905 | 380 | 11329 | 3600 | 1005 |
| 20066 | 1 | -1 | -1 | 40 | 12 | 1054 | 520 | 11664 | 3630 | 1006 |
| 20067 | 1 | -1 | -1 | 73 | 13 | 1065 | 1224 | 10854 | 3720 | 1007 |
| 20068 | 1 | -1 | -1 | 50 | 10 | 1060 | 1801 | 10610 | 3800 | 1008 |
| 20069 | 1 | -1 | -1 | 55 | 31 | 1266 | 2327 | 10452 | 3860 | 1009 |
| 20070 | 1 | -1 | -1 | 71 | 28 | 1337 | 3006 | 11579 | 3960 | 1010 |
| 20071 | 1 | -1 | -1 | 98 | 45 | 1598 | 5146 | 11937 | 4050 | 1011 |
| 20072 | 1 | -1 | -1 | 115 | 62 | 1726 | 7404 | 10728 | 4080 | 1012 |
| 20073 | 1 | -1 | -1 | 110 | 64 | 2237 | 8717 | 13210 | 4160 | 1013 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 205 | 2 | 1 | 388 | 455 | -1 | 191 | 5990 | 101 | 20511 | 18040 | 1019 |
| 205 | 3 | 1 | 353 | 551 | -1 | 253 | 6581 | 124 | 22296 | 18118 | 1020 |
| 205 | 4 | 1 | 422 | 512 | -1 | 281 | 25584 | 144 | 20225 | 18336 | 1021 |
| 205 | 5 | 1 | 439 | 463 | -1 | 212 | 28246 | 213 | 26822 | 18486 | 1022 |
| 205 | 6 | 1 | 419 | 487 | -1 | 239 | 30268 | 197 | 24424 | 18637 | 1023 |
| 205 | 7 | 1 | 429 | 520 | -1 | 286 | 27753 | 142 | 23306 | 18790 | 1024 |
| 205 | 8 | 1 | 471 | 480 | -1 | 311 | 27993 | 158 | 24505 | 18944 | 1025 |
| 205 | 9 | 1 | 511 | 521 | -1 | 355 | 24929 | 182 | 21105 | 19098 | 1026 |
| 205 | 10 | 1 | 478 | 520 | -1 | 369 | 25934 | 214 | 19769 | 19255 | 1027 |
| 205 | 11 | 1 | 504 | 587 | -1 | 428 | 25177 | 197 | 20093 | 19412 | 1028 |
| 205 | 12 | 1 | 460 | 616 | -1 | 418 | 25671 | 161 | 14208 | 19569 | 1029 |
| 205 | 13 | 1 | 489 | 637 | -1 | 374 | 23293 | 189 | 21165 | 19727 | 1030 |
| 205 | 14 | 1 | 391 | 609 | -1 | 366 | 18115 | 143 | 18409 | 19887 | 1031 |
| 205 | 15 | 1 | 316 | 593 | -1 | 228 | 10894 | 137 | 22198 | 20048 | 1032 |
| 205 | 16 | 1 | 260 | 530 | -1 | 170 | 8893 | 123 | 20523 | 20211 | 1033 |
| 205 | 17 | 1 | 215 | 474 | -1 | 113 | 8250 | 107 | 23867 | 20374 | 1034 |
| 205 | 21 | 1 | 194 | 100 | -1 | 50 | 5171 | 118 | 16269 | 8049 | 1038 |
| 205 | 22 | 1 | 222 | 161 | -1 | 88 | 6347 | 140 | 22644 | 8111 | 1039 |
| 205 | 23 | 1 | 251 | 195 | -1 | 96 | 8121 | 107 | 27647 | 8173 | 1040 |
| 205 | 24 | 1 | 269 | 242 | -1 | 148 | 8882 | 127 | 26268 | 8235 | 1041 |
| 205 | 25 | 1 | 266 | 331 | -1 | 240 | 8447 | 103 | 18276 | 8299 | 1042 |
| 205 | 26 | 1 | 238 | 284 | -1 | 226 | 8374 | 99 | 12841 | 8369 | 1043 |
| 205 | 27 | 1 | 238 | 309 | -1 | 214 | 8136 | 80 | 12466 | 8439 | 1044 |
| 205 | 28 | 1 | 238 | 375 | -1 | 234 | 8697 | 73 | 12268 | 8509 | 1045 |
| 205 | 29 | 1 | 265 | 417 | -1 | 325 | 8805 | 70 | 11534 | 8579 | 1046 |
| 205 | 30 | 1 | 338 | 429 | -1 | 386 | 9864 | 70 | 11905 | 8649 | 1047 |
| 205 | 31 | 1 | 400 | 526 | -1 | 355 | 11423 | 93 | 12746 | 8715 | 1048 |
| 205 | 32 | 1 | 423 | 490 | -1 | 347 | 12749 | 131 | 16422 | 8781 | 1049 |
| 205 | 33 | 1 | 335 | 484 | -1 | 351 | 13573 | 111 | 18735 | 8847 | 1050 |
| 205 | 34 | 1 | 330 | 397 | -1 | 314 | 12130 | 104 | 17506 | 8913 | 1051 |
| 205 | 35 | 1 | 301 | 377 | -1 | 260 | 11797 | 108 | 19240 | 8980 | 1052 |
| 205 | 36 | 1 | 354 | 449 | -1 | 312 | 12074 | 129 | 20859 | 9040 | 1053 |
| 205 | 37 | 1 | 372 | 476 | -1 | 306 | 11684 | 95 | 19143 | 9100 | 1054 |
| 205 | 38 | 1 | 413 | 467 | -1 | 287 | 11647 | 141 | 17929 | 9160 | 1055 |
| 205 | 51 | 1 | 347 | 306 | -1 | -1 | -1 | 107 | 18656 | 9419 | 1058 |
| 205 | 52 | 1 | 268 | 222 | -1 | -1 | -1 | 116 | 27261 | 9498 | 1059 |
| 205 | 53 | 1 | 253 | 166 | -1 | -1 | -1 | 178 | 26791 | 9585 | 1060 |
| 205 | 54 | 1 | 269 | 86 | -1 | -1 | 7105 | 156 | 23647 | 9691 | 1061 |
| 205 | 55 | 1 | 515 | 90 | -1 | -1 | 8243 | 188 | 34622 | 9808 | 1062 |
| 205 | 56 | 1 | 336 | 74 | -1 | -1 | 7160 | 107 | 17774 | 9911 | 1063 |
| 205 | 57 | 1 | 447 | 62 | -1 | -1 | 7856 | 104 | 9617 | 9840 | 1064 |
| 205 | 58 | 1 | 458 | 96 | -1 | 290 | 8456 | 109 | 10770 | 9882 | 1065 |
| 205 | 59 | 1 | 409 | 118 | -1 | 413 | 12749 | 136 | 11009 | 9937 | 1066 |
| 205 | 60 | 1 | 340 | 82 | -1 | 382 | 8785 | 159 | 8867 | 9984 | 1067 |
| 205 | 61 | 1 | 301 | 94 | -1 | 371 | 8940 | 113 | 10474 | 10028 | 1068 |
| 205 | 62 | 1 | 393 | 56 | -1 | 475 | 9049 | 130 | 11133 | 10061 | 1069 |
| 205 | 63 | 1 | 386 | 46 | -1 | 370 | 6426 | 165 | 7798 | 10088 | 1070 |
| 205 | 64 | 1 | 480 | 49 | -1 | 468 | 7560 | 173 | 10163 | 10100 | 1071 |
| 205 | 65 | 1 | 485 | 59 | -1 | 469 | 7778 | 189 | 12534 | 10130 | 1072 |
| 205 | 66 | 1 | 466 | 62 | -1 | 439 | 7735 | 199 | 13953 | 10170 | 1073 |
| 205 | 67 | 1 | 424 | 63 | -1 | 528 | 8715 | 279 | 13671 | 10210 | 1074 |
| 205 | 68 | 1 | 372 | 32 | -1 | 429 | 7988 | 294 | 10934 | 10250 | 1075 |
| 205 | 69 | 1 | 406 | 46 | -1 | 521 | 7144 | 261 | 8095 | 10290 | 1076 |
| 205 | 70 | 1 | 430 | 27 | -1 | 680 | 6343 | 376 | 5775 | 10320 | 1077 |
| 205 | 71 | 1 | 370 | 52 | -1 | 604 | 6917 | 495 | 8592 | 10350 | 1078 |
| 205 | 72 | 1 | 422 | 41 | -1 | 560 | 6739 | 482 | 9515 | 10380 | 1079 |
| 225 | 53 | 1 | 9802 | -1 | -1 | -1 | -1 | 13986 | 256567 | 372000 | 1089 |
| 225 | 54 | 1 | 8765 | -1 | -1 | -1 | -1 | 12995 | 223866 | 377000 | 1090 |
| 225 | 55 | 1 | 9700 | -1 | -1 | -1 | -1 | 11489 | 212028 | 386621 | 1091 |
| 225 | 56 | 1 | 10025 | -1 | -1 | -1 | -1 | 13015 | 236214 | 394217 | 1092 |
| 225 | 57 | 1 | 10419 | -1 | -1 | -1 | -1 | 12968 | 233239 | 402225 | 1093 |
| 225 | 58 | 1 | 10661 | -1 | -1 | -1 | -1 | 11778 | 236103 | 410686 | 1094 |
| 225 | 59 | 1 | 10712 | -1 | -1 | -1 | -1 | 10141 | 233052 | 419613 | 1095 |
| 225 | 60 | 1 | 10910 | -1 | -1 | -1 | -1 | 10244 | 228842 | 429027 | 1096 |
| 225 | 61 | 1 | 11188 | -1 | -1 | -1 | -1 | 10641 | 232868 | 439000 | 1097 |
| 225 | 62 | 1 | 11586 | -1 | -1 | -1 | -1 | 12441 | 252453 | 449641 | 1098 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 22563 | 1 | 10754 | -1 | -1 | -1 | -1 | 12691 | 242487 | 460490 | | 1099 |
| 22564 | 1 | 11748 | -1 | -1 | -1 | -1 | 13623 | 273676 | 471627 | | 1100 |
| 22565 | 1 | 12310 | -1 | -1 | -1 | -1 | 13022 | 273702 | 483410 | | 1101 |
| 22566 | 1 | 12691 | -1 | -1 | -1 | -1 | 13402 | 298701 | 494110 | | 1102 |
| 22567 | 1 | 13398 | -1 | -1 | -1 | -1 | 16552 | 339861 | 505080 | | 1103 |
| 22568 | 1 | 13841 | -1 | -1 | -1 | -1 | 16551 | 316513 | 516350 | | 1104 |
| 22569 | 1 | 14732 | -1 | -1 | -1 | -1 | 15971 | 300140 | 527950 | | 1105 |
| 22570 | 1 | 15708 | -1 | -1 | -1 | -1 | 26795 | 337211 | 539860 | | 1106 |
| 22571 | 1 | 16180 | -1 | -1 | -1 | -1 | 29595 | 335204 | 551830 | | 1107 |
| 23052 | 1 | 4015 | -1 | -1 | -1 | -1 | 48460 | 187034 | 78700 | | 1122 |
| 23053 | 1 | 3823 | -1 | -1 | -1 | -1 | 14893 | 160465 | 79900 | | 1123 |
| 23054 | 1 | 3464 | -1 | -1 | -1 | -1 | 12569 | 163357 | 81100 | | 1124 |
| 23055 | 1 | 2979 | -1 | -1 | -1 | -1 | 13108 | 193537 | 83858 | | 1125 |
| 23056 | 1 | 3216 | -1 | -1 | -1 | -1 | 16357 | 199556 | 85654 | | 1126 |
| 23057 | 1 | 3056 | -1 | -1 | -1 | -1 | 15595 | 190780 | 87514 | | 1127 |
| 23058 | 1 | 2615 | -1 | -1 | -1 | -1 | 16006 | 235934 | 89441 | | 1128 |
| 23059 | 1 | 2720 | -1 | -1 | -1 | -1 | 13818 | 235617 | 91438 | | 1129 |
| 23060 | 1 | 2310 | -1 | -1 | -1 | -1 | 11618 | 226372 | 93506 | | 1130 |
| 23061 | 1 | 2117 | -1 | -1 | -1 | -1 | 9033 | 197882 | 95655 | | 1131 |
| 23062 | 1 | 1301 | -1 | -1 | -1 | -1 | 6198 | 246192 | 97765 | | 1132 |
| 23063 | 1 | 1270 | -1 | -1 | -1 | -1 | 4831 | 213760 | 100045 | | 1133 |
| 23064 | 1 | 1225 | -1 | -1 | -1 | -1 | 5412 | 237031 | 102070 | | 1134 |
| 23065 | 1 | 3497 | -1 | -1 | -1 | -1 | 6229 | 192387 | 104340 | | 1135 |
| 23066 | 1 | 1634 | -1 | -1 | -1 | -1 | 4434 | 144886 | 106610 | | 1136 |
| 235 0 | 1 | 38 | 54 | -1 | 88 | 20199 | 61 | 782 | 4466 | | 1155 |
| 235 1 | 1 | 25 | 37 | -1 | 97 | 20199 | 94 | 807 | 4459 | | 1156 |
| 235 2 | 1 | 39 | 36 | -1 | 78 | 20199 | 108 | 678 | 4452 | | 1157 |
| 235 3 | 1 | 26 | 47 | -1 | 77 | 16260 | 90 | 616 | 4446 | | 1158 |
| 235 4 | 1 | 29 | 43 | -1 | 87 | 16260 | 81 | 644 | 4439 | | 1159 |
| 235 5 | 1 | 36 | 45 | -1 | 81 | 16260 | 88 | 588 | 4432 | | 1160 |
| 235 6 | 1 | 19 | 44 | -1 | 60 | 16260 | 68 | 550 | 4426 | | 1161 |
| 235 7 | 1 | 23 | 41 | -1 | 62 | 16260 | 82 | 539 | 4419 | | 1162 |
| 235 8 | 1 | 28 | 29 | -1 | 59 | 13704 | 102 | 534 | 4413 | | 1163 |
| 235 9 | 1 | 29 | 40 | -1 | 60 | 13704 | 36 | 383 | 4406 | | 1164 |
| 23510 | 1 | 33 | 55 | -1 | 76 | 13704 | 33 | 408 | 4399 | | 1165 |
| 23511 | 1 | 25 | 35 | -1 | 75 | 13704 | 48 | 446 | 4391 | | 1166 |
| 23512 | 1 | 25 | 55 | -1 | 65 | 13151 | 43 | 387 | 4387 | | 1167 |
| 23523 | 1 | 83 | -1 | -1 | -1 | -1 | -1 | -1 | 3031 | | 1170 |
| 23524 | 1 | 48 | -1 | -1 | -1 | -1 | -1 | -1 | 3007 | | 1171 |
| 23525 | 1 | 33 | 63 | -1 | 102 | 813 | 308 | 3426 | 2985 | | 1172 |
| 23526 | 1 | 50 | 68 | -1 | 134 | 890 | 207 | 4301 | 2973 | | 1173 |
| 23527 | 1 | 28 | 80 | -1 | 130 | 55 | 88 | 3943 | 2961 | | 1174 |
| 23528 | 1 | 22 | 23 | -1 | 152 | 88 | 59 | 3292 | 2949 | | 1175 |
| 23529 | 1 | 21 | 32 | -1 | 16 | 1118 | 40 | 3462 | 2937 | | 1176 |
| 23530 | 1 | 16 | 38 | -1 | 13 | 967 | 33 | 3521 | 2927 | | 1177 |
| 23531 | 1 | 17 | 35 | -1 | 23 | 963 | 38 | 3527 | 2936 | | 1178 |
| 23532 | 1 | 13 | 42 | -1 | 8 | 857 | 55 | 3621 | 2945 | | 1179 |
| 23533 | 1 | 19 | 30 | -1 | 138 | 993 | 56 | 3933 | 2954 | | 1180 |
| 23534 | 1 | 7 | 45 | -1 | 154 | 1353 | 86 | 3793 | 2963 | | 1181 |
| 2353501 | | 17 | 51 | -1 | 14 | 1314 | 34 | 3423 | 2971 | | 1182 |
| 2353601 | | 16 | 50 | -1 | 18 | 1257 | 32 | 3712 | 2968 | | 1183 |
| 23537 | 1 | 12 | 58 | -1 | 15 | 896 | 15 | 3840 | 2965 | | 1184 |
| 23538 | 1 | 14 | 8 | -1 | 13 | 1064 | 27 | 4360 | 2962 | | 1185 |
| 23539 | 1 | 10 | 12 | -1 | 4 | 1137 | 32 | 5707 | 2959 | | 1186 |
| 23540 | 1 | 12 | 12 | -1 | 6 | 904 | 41 | 6293 | 2958 | | 1187 |
| 23541 | 1 | 9 | 15 | -1 | 9 | 971 | 56 | 9760 | 2961 | | 1188 |
| 23542 | 1 | 8 | 11 | -1 | 14 | 1238 | 42 | 12790 | 2963 | | 1189 |
| 23543 | 1 | 13 | 19 | -1 | 10 | 1314 | 75 | 12630 | 2946 | | 1190 |
| 23544 | 1 | 8 | 13 | -1 | 11 | 1245 | 33 | 11532 | 2944 | | 1191 |
| 23545 | 1 | 6 | 14 | -1 | 16 | 1612 | 32 | 12116 | 2952 | | 1192 |
| 23546 | 1 | 8 | 7 | -1 | 12 | 1514 | 31 | 10900 | 2957 | | 1193 |
| 23547 | 1 | 3 | 14 | -1 | 12 | 1138 | 24 | 10886 | 2974 | | 1194 |
| 23548 | 1 | 17 | 5 | -1 | 18 | 1330 | 33 | 10221 | 2985 | | 1195 |
| 23549 | 1 | 6 | 9 | -1 | 16 | 1369 | 28 | 8388 | 2981 | | 1196 |
| 23550 | 1 | 9 | 5 | -1 | 14 | 1258 | 32 | 8414 | 2969 | | 1197 |

| 23552 | 1 | 10 | 3 | −1 | 17 | 1412 | 23 | 10561 | 2949 | 1199 |
|---|---|---|---|---|---|---|---|---|---|---|
| 23553 | 1 | 12 | 7 | −1 | 9 | 1497 | 36 | 11229 | 2945 | 1200 |
| 23554 | 1 | 4 | 1 | −1 | 12 | 1466 | 24 | 8243 | 2933 | 1201 |
| 23555 | 1 | 5 | 3 | −1 | 12 | 1388 | 41 | 8141 | 2909 | 1202 |
| 23556 | 1 | 4 | 3 | −1 | 6 | 1563 | 27 | 8900 | 2898 | 1203 |
| 23557 | 1 | 12 | 2 | −1 | 9 | 1402 | 33 | 9842 | 2885 | 1204 |
| 23558 | 1 | 10 | 2 | −1 | 10 | 1500 | 61 | 11766 | 2853 | 1205 |
| 23559 | 1 | 9 | 2 | −1 | 5 | 1545 | 59 | 12655 | 2846 | 1206 |
| 23560 | 1 | 4 | 2 | −1 | 12 | 1592 | 59 | 10709 | 2834 | 1207 |
| 23561 | 1 | 11 | 2 | −1 | 7 | 1779 | 42 | 9861 | 2818 | 1208 |
| 23562 | 1 | 6 | 6 | −1 | 12 | 1824 | 39 | 9817 | 2824 | 1209 |
| 23563 | 1 | 4 | 1 | −1 | 13 | 2236 | 42 | 10002 | 2841 | 1210 |
| 23564 | 1 | 9 | 5 | −1 | 19 | 2363 | 62 | 11150 | 2849 | 1211 |
| 23565 | 1 | 7 | 5 | −1 | 22 | 2692 | 77 | 10140 | 2880 | 1212 |
| 23566 | 1 | 8 | 7 | −1 | 13 | 2876 | 73 | 11791 | 2880 | 1213 |
| 23567 | 1 | 9 | 4 | −1 | 15 | 3047 | 86 | 12481 | 2900 | 1214 |
| 23568 | 1 | 12 | 3 | −1 | 16 | 3364 | 101 | 13893 | 2910 | 1215 |
| 23569 | 1 | 8 | 5 | −1 | 10 | 3680 | 147 | 15477 | 2930 | 1216 |
| 23570 | 1 | 12 | 7 | −1 | 15 | 3645 | 215 | 18570 | 2950 | 1217 |
| 23571 | 1 | 10 | 4 | −1 | 24 | 4365 | 314 | 23242 | 2970 | 1218 |
| 23572 | 1 | 22 | 6 | −1 | 26 | 4840 | 618 | 24280 | 3010 | 1219 |
| 23573 | 1 | 23 | 6 | −1 | 42 | 6258 | 619 | 22206 | 3033 | 1220 |
| 24049 | 1 | 47 | −1 | −1 | −1 | 1334 | 196 | 7257 | 1066 | 1229 |
| 24050 | 1 | 50 | −1 | −1 | −1 | 1982 | 201 | 9142 | 1258 | 1230 |
| 24051 | 1 | 61 | −1 | −1 | −1 | 2618 | 165 | 12774 | 1516 | 1231 |
| 24052 | 1 | 61 | −1 | −1 | −1 | 3035 | 157 | 16840 | 1607 | 1232 |
| 24053 | 1 | 66 | −1 | −1 | −1 | 2584 | 125 | 14571 | 1650 | 1233 |
| 24054 | 1 | 85 | −1 | −1 | −1 | 3051 | 85 | 15281 | 1688 | 1234 |

```
** VM/SP SERVICE LEVEL 0310 **** CPU SERIAL  014561  CPU MODEL  4341 *********************************************
** PRINT STARTED  09/03/86 16:23:31 ********************************************************************
```

| RSCS | RSCS | USERID | ORIGIN |
|------|------|--------|--------|
| ARCHER | UCSCVM | DISTCODE | SYSTEM |
| | | FILENAME | FILETYPE |
| 09/03/86 | 16:16:26 | FILE CREATION DATE | |
| 5824 | 00001001 | SPOOLID | COUNT |
| 09/03/86 | 16:23:31 | FILE PRINT DATE | |
| 0 | 04A | CLASS | DEVICE |
| STANDARD | | FORMS | |

TAG DATA: FILE (2620) ORIGIN UCSCC     daemon     9/03/86 16:19:49 P.D.T.

DANE ARCHER
STEVENSON COLLEGE
UNIVERSITY OF CALIFORNIA
SANTA CRUZ, CALIF. 95064

"eight" (sample)
(raw data set)

```
****************************************************************************************
****************************************************************************************
****************************************************************************************
```

```
//EIGH: JOB 21048,ARCHER,CLASS=D,
***@B UCSCVM    VS1       21048    A 00000000 UCSCC    ARCHER
// MSGCLASS=Q
LOG >>>> EIGHT      - 21048,ARCHER                -D-     - 14:50  ARCHER
LOG IEF233A M 4C1,SC5820,,EIGHT,PTPCH,NEW.EIGHT.PLUS
LOG Job EIGHT.PTPCH(IEBPTPCH) #001 Complete 0000
LOG IEF280E K 4C1,SC5820,EIGHT,PTPCH
// EXEC PTPCH,SYSOUT=Q
XXPTPCH    PROC SYSOUT='A'                                      00000010
XXPTPCH    EXEC PGM=IEBPTPCH,REGION=50K                         00000020
//SYSPRINT DD SYSOUT=Q
X/SYSPRINT  DD SYSOUT=&SYSOUT                                   00000030
IEF653I SUBSTITUTION JCL - SYSOUT=Q
//SYSIN DD *
//SYSUT1 DD DSN=NEW.EIGHT.PLUS,
//  UNIT=TAPE,
//  VOL=(,RETAIN,SER=SC5820),
//  DISP=OLD,
//  LABEL=(2,SL)
//SYSUT2 DD SYSOUT=Q,DCB=(RECFM=FBA,LRECL=81)
//
IEF236I ALLOC. FOR EIGHT    PTPCH
IEF237I 4C1   ALLOCATED TO SYSUT1
IEF142I - STEP WAS EXECUTED - COND CODE 0000
IEF285I    NEW.EIGHT.PLUS                             KEPT
IEF285I    VOL SER NOS= SC5820.
IEF373I STEP /PTPCH  / START 86245.1450
IEF374I STEP /PTPCH  / STOP  86245.1452 CPU   0MIN 02.30SEC STOR VIRT 122K

         -------- Device type   Address  I/O count        Sysout DD name   Lines Class Copies
                  Tape            4C1      353              SYSPRINT            5   Q
                                                           SYSUT2          3,520   Q


         ------- Total sysin count       1.    Partition size 1,182K;   Memory used   122K.
IEF280E K 4C1,SC5820,EIGHT,PTPCH
IEF298I  EIGHT    SYSOUT=Q.
IEF375I  JOB /EIGHT  / START 86245.1450
IEF376I  JOB /EIGHT  / STOP  86245.1452 CPU   0MIN 02.30SEC

         Job started Sep 02,1986 Tue 14:50:13                  CPU id-014561

         Estimated job cost (does not include tape mounts or JCL printing):
                  CPU time          $ .28 00:00:02.30 at $450. per hour
                  I/O requests      $ .42       353 at $1.20 per 1000
                  Lines printed     $4.05     3,525 at $1.15 per 1000
                                   ----------
                  Total            $4.75   ($.35 minimum).
```

PUNCH
EOF ON SYSIN
END OF DATA FOR SDS OR MEMBER

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 20 3 1 | -1 | -1 | 51 | 90 | 244 | -1 | -1 | 3850 | | 19 |
| 20 4 1 | -1 | -1 | 58 | 97 | 225 | -1 | -1 | 3926 | | 20 |
| 20 5 1 | -1 | -1 | 46 | 96 | 256 | -1 | -1 | 4002 | | 21 |
| 20 6 1 | -1 | -1 | 56 | 70 | 239 | -1 | -1 | 4078 | | 22 |
| 20 7 1 | -1 | -1 | 45 | 90 | 256 | -1 | -1 | 4154 | | 23 |
| 20 8 1 | -1 | -1 | 46 | 60 | 278 | -1 | -1 | 4230 | | 24 |
| 20 9 1 | -1 | -1 | 45 | 59 | 260 | -1 | -1 | 4306 | | 25 |
| 2010 1 | -1 | -1 | 46 | 77 | 250 | -1 | -1 | 4382 | | 26 |
| 2011 1 | -1 | -1 | 33 | 97 | 235 | -1 | -1 | 4455 | | 27 |
| 2012 1 | -1 | -1 | 49 | 88 | 221 | -1 | -1 | 4556 | | 28 |
| 2013 1 | -1 | -1 | 52 | 71 | 298 | -1 | -1 | 4657 | | 29 |
| 2014 1 | -1 | -1 | 57 | 67 | 300 | -1 | -1 | 4758 | | 30 |
| 2015 1 | -1 | -1 | 40 | 14 | 226 | -1 | -1 | 4859 | | 31 |
| 2016 1 | -1 | -1 | 35 | 15 | 193 | -1 | -1 | 4960 | | 32 |
| 2017 1 | -1 | -1 | 30 | 15 | 239 | -1 | -1 | 5061 | | 33 |
| 2018 1 | -1 | -1 | 21 | 11 | 155 | -1 | -1 | 5162 | | 34 |
| 2019 1 | -1 | -1 | 48 | 3 | 220 | -1 | -1 | 5263 | | 35 |
| 2020 1 | -1 | -1 | 38 | 7 | 223 | -1 | -1 | 5360 | | 36 |
| 2021 1 | -1 | -1 | 46 | 8 | 235 | -1 | -1 | 5476 | | 37 |
| 2022 1 | -1 | -1 | 46 | 5 | 240 | -1 | -1 | 5592 | | 38 |
| 2023 1 | -1 | -1 | 30 | 8 | 246 | -1 | -1 | 5708 | | 39 |
| 2024 1 | -1 | -1 | 34 | 8 | 217 | -1 | -1 | 5824 | | 40 |
| 2025 1 | -1 | -1 | 41 | 8 | 263 | -1 | -1 | 5939 | | 41 |
| 2026 1 | -1 | -1 | 37 | 15 | 235 | -1 | -1 | 6044 | | 42 |
| 2027 1 | -1 | -1 | 45 | 14 | 224 | -1 | -1 | 6149 | | 43 |
| 2028 1 | -1 | -1 | 42 | 11 | 222 | -1 | -1 | 6252 | | 44 |
| 2029 1 | -1 | -1 | 48 | 15 | 244 | -1 | -1 | 6359 | | 45 |
| 2030 1 | -1 | -1 | 29 | 14 | 224 | -1 | -1 | 6463 | | 46 |
| 2031 1 | -1 | -1 | 51 | 9 | 211 | -1 | -1 | 6516 | | 47 |
| 2032 1 | -1 | -1 | 32 | 14 | 217 | -1 | -1 | 6569 | | 48 |
| 2033 1 | -1 | -1 | 36 | 16 | 216 | -1 | -1 | 6622 | | 49 |
| 2034 1 | -1 | -1 | 32 | 6 | 191 | -1 | -1 | 6675 | | 50 |
| 2035 1 | -1 | -1 | 40 | 10 | 186 | -1 | -1 | 6726 | | 51 |
| 2036 1 | -1 | -1 | 34 | 14 | 182 | -1 | -1 | 6789 | | 52 |
| 2037 1 | -1 | -1 | 38 | 20 | 227 | -1 | -1 | 6852 | | 53 |
| 2038 1 | -1 | -1 | 37 | 9 | 60 | 85 | 754 | 6915 | | 54 |
| 2039 1 | -1 | -1 | 34 | 10 | 64 | 117 | 988 | 6978 | | 55 |
| 2040 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | | 56 |
| 2041 1 | -1 | -1 | 33 | 28 | 46 | 100 | 597 | 7110 | | 57 |
| 2042 1 | -1 | -1 | 41 | 14 | 74 | 134 | 748 | 7181 | | 58 |
| 2043 1 | -1 | -1 | 37 | 24 | 82 | 148 | 868 | 7235 | | 59 |
| 2044 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | | 60 |
| 2045 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | | 61 |
| 2046 1 | -1 | -1 | 37 | 25 | 130 | 110 | 1033 | 7465 | | 62 |
| 2047 1 | -1 | -1 | 51 | 22 | 170 | 128 | 1027 | 7579 | | 63 |
| 2048 1 | -1 | -1 | 69 | 13 | 173 | 104 | 1072 | 7708 | | 64 |
| 2049 1 | -1 | -1 | 60 | 10 | 175 | 138 | 1073 | 7908 | | 65 |
| 2050 1 | -1 | -1 | 67 | 17 | 215 | 170 | 1103 | 8179 | | 66 |
| 2051 1 | -1 | -1 | 67 | 19 | 203 | 176 | 1158 | 8422 | | 67 |
| 2052 1 | -1 | -1 | 61 | 21 | 207 | 165 | 1457 | 8636 | | 68 |
| 2053 1 | -1 | -1 | 83 | 22 | 318 | 137 | 1405 | 8818 | | 69 |
| 2054 1 | -1 | -1 | 76 | 26 | 270 | 197 | 1333 | 8987 | | 70 |
| 2055 1 | -1 | -1 | 83 | 17 | 271 | 158 | 1373 | 9201 | | 71 |
| 2056 1 | -1 | -1 | 60 | 43 | 268 | 162 | 1805 | 9426 | | 72 |
| 2057 1 | -1 | -1 | 79 | 13 | 241 | 184 | 2286 | 9640 | | 73 |
| 2058 1 | -1 | -1 | 80 | 25 | 245 | 158 | 2533 | 9842 | | 74 |
| 2059 1 | -1 | -1 | 93 | 29 | 212 | 188 | 2404 | 10056 | | 75 |
| 2060 1 | -1 | -1 | 87 | 39 | 222 | 229 | 2727 | 10275 | | 76 |
| 2061 1 | -1 | -1 | 90 | 70 | 254 | 223 | 3235 | 10508 | | 77 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2062 | 1 | -1 | -1 | 114 | 48 | 231 | 298 | 3026 | 10705 | 78 |
| 2063 | 1 | -1 | -1 | 95 | 83 | 185 | 135 | 3095 | 10916 | 79 |
| 2064 | 1 | 143 | 34 | 272 | 262 | 1924 | 592 | 39695 | 11136 | 80 |
| 2065 | 1 | 141 | 29 | 271 | 287 | 1898 | 7730 | 46626 | 11390 | 81 |
| 2066 | 1 | 163 | 29 | 321 | 251 | 2227 | 892 | 56841 | 11600 | 82 |
| 2067 | 1 | 137 | 36 | 300 | 311 | 2158 | 960 | 19072 | 11800 | 83 |
| 2068 | 1 | 143 | 43 | 300 | 363 | 2508 | 1280 | 23562 | 12000 | 84 |
| 2069 | 1 | 157 | 33 | 280 | 364 | 2483 | 1599 | 25597 | 12260 | 85 |
| 2070 | 1 | 172 | 22 | 339 | 416 | 3282 | 1999 | 30591 | 12510 | 86 |
| 2071 | 1 | 185 | 39 | 343 | 578 | 3662 | 2818 | 33925 | 12760 | 87 |
| 2072 | 1 | 207 | 46 | 422 | 644 | 4285 | 3045 | 36976 | 12960 | 88 |
| 2553 | 1 | 60 | 23 | -1 | 698 | 2830 | 250 | 20720 | 6954 | 99 |
| 2554 | 1 | 68 | 23 | -1 | 609 | 2753 | 272 | 20930 | 6969 | 100 |
| 2555 | 1 | 66 | 30 | -1 | 730 | 2888 | 311 | 22085 | 6974 | 101 |
| 2556 | 1 | 88 | 20 | -1 | 659 | 2584 | 292 | 24627 | 6983 | 102 |
| 2557 | 1 | 59 | 33 | -1 | 540 | 2907 | 336 | 28287 | 6997 | 103 |
| 2558 | 1 | 53 | 14 | -1 | 640 | 2914 | 412 | 28569 | 7021 | 104 |
| 2559 | 1 | 62 | 30 | -1 | 583 | 2855 | 353 | 29554 | 7049 | 105 |
| 2560 | 1 | 55 | 25 | -1 | 671 | 2856 | 362 | 30569 | 7048 | 106 |
| 2561 | 1 | 45 | 25 | -1 | 641 | 2424 | 383 | 32261 | 7087 | 107 |
| 2562 | 1 | 54 | 20 | -1 | 709 | 2566 | 367 | 36618 | 7130 | 108 |
| 2563 | 1 | 47 | 20 | -1 | 600 | 2761 | 378 | 36618 | 7172 | 109 |
| 2564 | 1 | 44 | 22 | -1 | 669 | 2696 | 405 | 40180 | 7220 | 110 |
| 2565 | 1 | 45 | 29 | -1 | 604 | 2648 | 433 | 49059 | 7250 | 111 |
| 2566 | 1 | 49 | 14 | -1 | 582 | 2667 | 461 | 50667 | 7290 | 112 |
| 2567 | 1 | 53 | 24 | -1 | 583 | 2954 | 597 | 55841 | 7320 | 113 |
| 2568 | 1 | 45 | 10 | -1 | 600 | 2845 | 520 | 62873 | 7350 | 114 |
| 2569 | 1 | 82 | 30 | -1 | 658 | 2923 | 550 | 65496 | 7370 | 115 |
| 2570 | 1 | 70 | 35 | -1 | 673 | 3178 | 548 | 67676 | 7390 | 116 |
| 2571 | 1 | 69 | 36 | -1 | 625 | 2879 | 684 | 67649 | 7460 | 117 |
| 2572 | 1 | 63 | 40 | -1 | 679 | 3136 | 761 | 84127 | 7490 | 118 |
| 2573 | 1 | 70 | 34 | -1 | 630 | 3132 | 825 | 81687 | 7522 | 119 |
| 3063 | 1 | -1 | -1 | 2 | 11 | 10 | 20 | 0 | 170 | 124 |
| 3064 | 1 | -1 | -1 | 4 | 8 | 6 | 13 | 0 | 177 | 125 |
| 3065 | 1 | -1 | -1 | 3 | 5 | 8 | 22 | 0 | 185 | 126 |
| 3066 | 1 | -1 | -1 | 2 | 5 | 7 | 16 | 2 | 193 | 127 |
| 3067 | 1 | -1 | -1 | 1 | 6 | 4 | 14 | 1 | 190 | 128 |
| 3068 | 1 | -1 | -1 | 5 | 1 | 3 | 7 | 1 | 200 | 129 |
| 3069 | 1 | -1 | -1 | 2 | 4 | 4 | 15 | 2 | 210 | 130 |
| 3070 | 1 | -1 | -1 | 2 | 1 | 3 | 14 | 3 | 220 | 131 |
| 3071 | 1 | -1 | -1 | 2 | 3 | 4 | 16 | 4 | 220 | 132 |
| 3072 | 1 | -1 | -1 | 1 | 0 | 8 | 16 | 2 | 220 | 133 |
| 3073 | 1 | -1 | -1 | 2 | 5 | 4 | 28 | 0 | 227 | 134 |
| 3541 | 1 | -1 | -1 | 11 | 294 | -1 | -1 | 15689 | 8274 | 149 |
| 3542 | 1 | -1 | -1 | 15 | 311 | -1 | -1 | 22440 | 8246 | 150 |
| 3543 | 1 | -1 | -1 | 28 | 308 | -1 | -1 | 24018 | 8241 | 151 |
| 3544 | 1 | -1 | -1 | 5 | 254 | -1 | -1 | 12851 | 8291 | 152 |
| 3545 | 1 | -1 | -1 | 33 | 259 | -1 | -1 | 5844 | 8339 | 153 |
| 3546 | 1 | -1 | -1 | 37 | 399 | -1 | -1 | 7520 | 8367 | 154 |
| 3547 | 1 | -1 | -1 | 45 | 451 | -1 | -1 | 6981 | 8450 | 155 |
| 3548 | 1 | -1 | -1 | 49 | 562 | -1 | -1 | 7942 | 8557 | 156 |
| 3549 | 1 | -1 | -1 | 41 | 783 | -1 | -1 | 6884 | 8614 | 157 |
| 3550 | 1 | -1 | -1 | 29 | 775 | -1 | -1 | 4966 | 8639 | 158 |
| 3551 | 1 | -1 | -1 | 22 | 661 | -1 | -1 | 5653 | 8678 | 159 |
| 3552 | 1 | -1 | -1 | 27 | 747 | -1 | -1 | 6932 | 8730 | 160 |
| 3553 | 1 | -1 | -1 | 20 | 749 | -1 | -1 | 5300 | 8778 | 161 |
| 3554 | 1 | -1 | -1 | 11 | 705 | -1 | -1 | 4438 | 8819 | 162 |
| 3555 | 1 | -1 | -1 | 18 | 713 | -1 | -1 | 4266 | 8868 | 163 |
| 3556 | 1 | -1 | -1 | 14 | 806 | -1 | -1 | 4860 | 8924 | 164 |
| 3557 | 1 | -1 | -1 | 15 | 857 | -1 | -1 | 4986 | 8989 | 165 |
| 3558 | 1 | -1 | -1 | 17 | 825 | -1 | -1 | 4974 | 9053 | 166 |
| 3559 | 1 | -1 | -1 | 22 | 1009 | -1 | -1 | 4977 | 9104 | 167 |
| 3560 | 1 | -1 | -1 | 21 | 1130 | -1 | -1 | 5558 | 9153 | 168 |
| 3561 | 1 | -1 | -1 | 11 | 1114 | -1 | -1 | 5667 | 9184 | 169 |
| 3562 | 1 | -1 | -1 | 18 | 1141 | -1 | -1 | 5714 | 9221 | 170 |
| 3563 | 1 | -1 | -1 | 28 | 1051 | -1 | -1 | 5847 | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 3564 | 1 | -1 | -1 | 16 | 993 | -1 | -1 | 5980 | 9378 | 172 |
| 3565 | 1 | -1 | -1 | 24 | 990 | -1 | -1 | 5577 | 9460 | 173 |
| 3566 | 1 | -1 | -1 | 26 | 866 | -1 | -1 | 6220 | 9530 | 174 |
| 3567 | 1 | -1 | -1 | 27 | 1049 | -1 | -1 | 7158 | 9580 | 175 |
| 3568 | 1 | -1 | -1 | 27 | 1006 | -1 | -1 | 7087 | 9620 | 176 |
| 3569 | 1 | -1 | -1 | 34 | 908 | -1 | -1 | 6274 | 9650 | 177 |
| 4041 | 1 | 1 | 1 | -1 | 4 | 106 | 4 | 393 | 32 | 182 |
| 4042 | 1 | 1 | 0 | -1 | 1 | 133 | 2 | 415 | 33 | 183 |
| 4043 | 1 | 1 | 1 | -1 | 0 | 126 | 5 | 335 | 33 | 184 |
| 4044 | 1 | 0 | 1 | -1 | 0 | 138 | 3 | 365 | 34 | 185 |
| 4045 | 1 | 2 | 1 | -1 | 3 | 98 | 8 | 409 | 35 | 186 |
| 4046 | 1 | 0 | 1 | -1 | 2 | 113 | 2 | 419 | 35 | 187 |
| 4047 | 1 | 1 | 1 | -1 | 1 | 98 | 9 | 581 | 35 | 188 |
| 4048 | 1 | 0 | 0 | -1 | 13 | 85 | 4 | 598 | 36 | 189 |
| 4049 | 1 | 2 | 0 | -1 | 7 | 91 | 3 | 515 | 36 | 190 |
| 4050 | 1 | 1 | 2 | -1 | 4 | 82 | 2 | 503 | 37 | 191 |
| 4051 | 1 | 0 | 1 | -1 | 7 | 101 | 5 | 552 | 38 | 192 |
| 4052 | 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 193 |
| 4053 | 1 | 1 | 1 | -1 | 4 | 60 | 13 | 752 | 39 | 194 |
| 4054 | 1 | 3 | 2 | -1 | 0 | 71 | 12 | 796 | 40 | 195 |
| 4055 | 1 | 0 | 0 | -1 | 3 | 78 | 13 | 832 | 40 | 196 |
| 4056 | 1 | 2 | 1 | -1 | 5 | 89 | 15 | 1109 | 41 | 197 |
| 4057 | 1 | 0 | 1 | -1 | 1 | 113 | 8 | 896 | 42 | 198 |
| 4058 | 1 | 0 | 2 | -1 | 5 | 96 | 11 | 1010 | 43 | 199 |
| 4059 | 1 | 7 | 1 | -1 | 4 | 134 | 11 | 1757 | 43 | 200 |
| 4060 | 1 | 2 | 1 | -1 | 3 | 100 | 14 | 2558 | 44 | 201 |
| 4061 | 1 | 1 | 2 | -1 | 2 | 97 | 15 | 2518 | 45 | 202 |
| 4062 | 1 | 1 | 0 | -1 | 2 | 127 | 21 | 2809 | 46 | 203 |
| 4063 | 1 | 0 | 0 | -1 | 7 | 124 | 23 | 3059 | 47 | 204 |
| 4064 | 1 | 2 | 1 | -1 | 5 | 132 | 22 | 2800 | 48 | 205 |
| 4065 | 1 | 0 | 0 | -1 | 3 | 121 | 18 | 3416 | 50 | 206 |
| 4066 | 1 | 1 | 3 | -1 | 3 | 147 | 12 | 3305 | 50 | 207 |
| 4067 | 1 | 2 | 0 | -1 | 5 | 176 | 16 | 3759 | 50 | 208 |
| 4068 | 1 | 2 | 4 | -1 | 2 | 85 | 11 | 2509 | 50 | 209 |
| 4069 | 1 | 1 | 1 | -1 | 4 | 98 | 11 | 3092 | 50 | 210 |
| 4070 | 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 211 |
| 4071 | 1 | 3 | 0 | -1 | 5 | 156 | 26 | 2120 | 50 | 212 |
| 4072 | 1 | 2 | 0 | -1 | 3 | 155 | 17 | 1769 | 51 | 213 |
| 4073 | 1 | 7 | 1 | -1 | 5 | 100 | 33 | 1837 | 52 | 214 |
| 4074 | 1 | 5 | 1 | -1 | 5 | 112 | 39 | 2594 | 52 | 215 |
| 5564 | 1 | 0 | -1 | 0 | 1 | 68 | 0 | 122 | 100 | 229 |
| 5565 | 1 | 0 | -1 | 0 | 2 | 56 | 0 | 113 | 100 | 230 |
| 5566 | 1 | 1 | -1 | 0 | 3 | 62 | 0 | 185 | 110 | 231 |
| 5567 | 1 | 1 | -1 | 0 | 0 | 13 | 0 | 189 | 110 | 232 |
| 5568 | 1 | 0 | -1 | 0 | 1 | 31 | 0 | 166 | 120 | 233 |
| 5569 | 1 | 1 | -1 | 0 | 1 | 46 | 2 | 245 | 120 | 234 |
| 5570 | 1 | 2 | -1 | 0 | 0 | 250 | 4 | 264 | 130 | 235 |
| 5571 | 1 | 0 | -1 | 0 | 3 | 363 | 2 | 328 | 140 | 236 |
| 5572 | 1 | 0 | -1 | 0 | 0 | 316 | 4 | 335 | 140 | 237 |
| 5573 | 1 | 2 | -1 | 0 | 4 | 336 | 4 | 297 | 143 | 238 |
| 5574 | 1 | 2 | -1 | 0 | 3 | 175 | 9 | 254 | 146 | 239 |
| 6553 | 1 | 11495 | -1 | -1 | 2207 | -1 | 38573 | 46164 | 19710 | 272 |
| 6554 | 1 | 9072 | -1 | -1 | 1944 | -1 | 31482 | 37613 | 20040 | 273 |
| 6555 | 1 | 7246 | -1 | -1 | 1737 | -1 | 28379 | 40999 | 20390 | 274 |
| 6556 | 1 | 12034 | -1 | -1 | 2504 | -1 | 36154 | 45860 | 20730 | 275 |
| 6557 | 1 | 2302 | -1 | -1 | 528 | -1 | 6320 | 9180 | 21130 | 276 |
| 6558 | 1 | 10256 | -1 | -1 | 2463 | -1 | 30133 | 43388 | 21530 | 277 |
| 6559 | 1 | 7031 | -1 | -1 | 3761 | -1 | 16661 | 34033 | 21940 | 278 |
| 6560 | 1 | 7879 | -1 | -1 | 3427 | -1 | 19566 | 33480 | 22360 | 279 |
| 6561 | 1 | 8232 | -1 | -1 | 3549 | -1 | 20307 | 34713 | 22780 | 280 |
| 6562 | 1 | 7400 | -1 | -1 | 3704 | -1 | 15992 | 37052 | 23253 | 281 |
| 6563 | 1 | 6774 | -1 | -1 | 3717 | -1 | 14968 | 41030 | 23735 | 282 |
| 6564 | 1 | 6792 | -1 | -1 | 3720 | -1 | 17712 | 45948 | 24229 | 283 |
| 6565 | 1 | 9120 | -1 | -1 | 5040 | -1 | 25368 | 64656 | 24730 | 284 |
| 6566 | 1 | 9975 | -1 | -1 | 4200 | -1 | 30600 | 68725 | 25250 | 285 |
| 6567 | 1 | 9698 | -1 | -1 | 3562 | -1 | 29432 | 88764 | 25810 | 286 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 6568 1 | 8505 | -1 | -1 | 6831 | -1 | 20061 | 75141 | 26390 | | 287 |
| 6569 1 | 7755 | -1 | -1 | 3273 | -1 | 15098 | 60115 | 26980 | | 288 |
| 6570 1 | 7252 | -1 | -1 | 3416 | -1 | 62804 | 11172 | 27580 | | 289 |
| 75 1 1 | 7 | 12 | -1 | -1 | 346 | 52 | 316 | 5371 | | 302 |
| 75 2 1 | 11 | 17 | -1 | -1 | 622 | 29 | 287 | 8855 | | 303 |
| 75 3 1 | 8 | 14 | -1 | -1 | 680 | 81 | 346 | 5739 | | 304 |
| 75 4 1 | 14 | 19 | -1 | -1 | 699 | 92 | 366 | 5923 | | 305 |
| 75 5 1 | 12 | 15 | -1 | -1 | 651 | 84 | 477 | 6107 | | 306 |
| 75 6 1 | 3 | 15 | -1 | -1 | 592 | 62 | 392 | 6291 | | 307 |
| 75 7 1 | 8 | 24 | -1 | -1 | 728 | 99 | 318 | 6475 | | 308 |
| 75 8 1 | 14 | 22 | -1 | -1 | 1179 | 101 | 507 | 6659 | | 309 |
| 75 9 1 | 18 | 24 | -1 | -1 | 1264 | 92 | 313 | 6843 | | 310 |
| 751901 | -1 | 60 | -1 | -1 | 1323 | 2300 | 8605 | 8639 | | 313 |
| 752001 | -1 | 69 | -1 | -1 | 1389 | 1868 | 6559 | 8820 | | 314 |
| 752101 | -1 | 56 | -1 | -1 | 1474 | 1966 | 5938 | 8968 | | 315 |
| 752201 | -1 | 64 | -1 | -1 | 1451 | 1207 | 5865 | 9116 | | 316 |
| 752301 | -1 | 53 | -1 | -1 | 1302 | 1704 | 6164 | 9264 | | 317 |
| 752401 | -1 | 47 | -1 | -1 | 1440 | 1805 | 6610 | 9412 | | 318 |
| 752501 | -1 | 55 | -1 | -1 | 1400 | 1624 | 6651 | 9559 | | 319 |
| 752601 | -1 | 60 | 126 | -1 | 1743 | 1896 | 7108 | 9744 | | 320 |
| 752701 | -1 | 51 | 124 | -1 | 1470 | 2167 | 7870 | 9929 | | 321 |
| 752801 | -1 | 54 | 150 | -1 | 1923 | 2563 | 8777 | 10114 | | 322 |
| 752901 | -1 | 85 | 182 | -1 | 2203 | 3696 | 10540 | 10299 | | 323 |
| 753001 | -1 | 68 | 214 | -1 | 2368 | 4327 | 11610 | 10484 | | 324 |
| 753101 | -1 | 77 | 172 | -1 | 2336 | 4267 | 11144 | 10614 | | 325 |
| 753201 | -1 | 68 | 158 | -1 | 2144 | 4347 | 11257 | 10744 | | 326 |
| 753301 | -1 | 63 | 147 | -1 | 2167 | 4238 | 10719 | 10874 | | 327 |
| 753401 | -1 | 58 | 142 | -1 | 2471 | 4147 | 10603 | 11004 | | 328 |
| 753501 | -1 | 56 | 193 | -1 | 2667 | 4841 | 11026 | 11135 | | 329 |
| 753601 | -1 | 81 | 137 | -1 | 2583 | 4604 | 11905 | 11244 | | 330 |
| 753701 | -1 | 57 | 138 | -1 | 2440 | 5509 | 14048 | 11353 | | 331 |
| 753801 | -1 | 68 | 127 | -1 | 2639 | 6147 | 14763 | 11462 | | 332 |
| 753901 | -1 | 70 | 124 | -1 | 2996 | 5416 | 13464 | 11571 | | 333 |
| 754001 | -1 | 65 | 148 | -1 | 3632 | 4217 | 11632 | 11682 | | 334 |
| 754101 | -1 | 60 | 130 | -1 | 3914 | 3920 | 11056 | 11822 | | 335 |
| 754201 | -1 | 68 | 113 | -1 | 4301 | 4223 | 12158 | 11962 | | 336 |
| 754301 | -1 | 44 | 125 | -1 | 4088 | 5291 | 12565 | 12108 | | 337 |
| 754401 | -1 | 30 | 106 | -1 | 4183 | 5297 | 12280 | 12262 | | 338 |
| 754501 | -1 | 59 | 152 | -1 | 4814 | 5783 | 12522 | 12394 | | 339 |
| 754601 | -1 | 87 | 146 | -1 | 5994 | 5304 | 12172 | 12622 | | 340 |
| 754701 | -1 | 73 | 146 | -1 | 5462 | 5541 | 11719 | 12888 | | 341 |
| 754801 | -1 | 67 | 155 | -1 | 4929 | 5076 | 11217 | 13167 | | 342 |
| 754901 | -1 | 77 | 172 | -1 | 4194 | 3952 | 9457 | 13447 | | 343 |
| 755001 | -1 | 94 | 112 | -1 | 4153 | 4292 | 9162 | 13712 | | 344 |
| 755101 | -1 | 107 | 137 | -1 | 3491 | 3883 | 9870 | 14009 | | 345 |
| 755201 | -1 | 95 | 135 | -1 | 3874 | 4040 | 9777 | 14430 | | 346 |
| 755301 | -1 | 69 | 149 | -1 | 3864 | 4174 | 9001 | 14781 | | 347 |
| 755401 | 125 | 96 | 157 | -1 | 3765 | 4743 | 8746 | 15195 | | 348 |
| 755501 | 118 | 59 | 157 | -1 | 3483 | 4606 | 8229 | 15601 | | 349 |
| 755601 | 131 | 93 | -1 | -1 | 3536 | 4580 | 9192 | 16123 | | 350 |
| 755701 | 129 | 118 | -1 | -1 | 3638 | 5588 | 11497 | 16677 | | 351 |
| 755801 | 153 | 98 | -1 | -1 | 3457 | 6896 | 12847 | 17120 | | 352 |
| 755901 | 141 | 115 | -1 | -1 | 3180 | 6435 | 12660 | 17622 | | 353 |
| 756001 | 190 | 112 | -1 | -1 | 3550 | 7642 | 14435 | 17809 | | 354 |
| 756101 | 185 | 114 | -1 | -1 | 3772 | 7863 | 15456 | 18269 | | 355 |
| 756201 | 217 | 164 | -1 | -1 | 3975 | 7776 | 15001 | 18600 | | 356 |
| 756301 | 215 | 151 | -1 | -1 | 4077 | 8701 | 16765 | 18928 | | 357 |
| 756401 | 218 | 137 | -1 | -1 | 4394 | 8399 | 16649 | 19237 | | 358 |
| 756501 | 243 | 141 | -1 | -1 | 4579 | 7927 | 17972 | 19680 | | 359 |
| 756601 | 221 | 142 | -1 | -1 | 5097 | 7965 | 20480 | 20050 | | 360 |
| 756701 | 282 | 168 | -1 | -1 | 4587 | 8179 | 20264 | 20410 | | 361 |
| 756801 | 315 | -1 | -1 | -1 | -1 | -1 | -1 | 20730 | | 362 |
| 756901 | 346 | -1 | -1 | -1 | -1 | -1 | -1 | 21030 | | 363 |
| 757001 | 433 | -1 | -1 | -1 | -1 | -1 | -1 | 21320 | | 364 |
| 757101 | 427 | -1 | -1 | -1 | -1 | -1 | -1 | 21600 | | 365 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 757301 | 474 | -1 | -1 | -1 | -1 | -1 | -1 | 22130 | 367 |
| 95 0 1 | -1 | -1 | 855 | -1 | 290 | 2481 | -1 | 2921 | 387 |
| 95 1 1 | -1 | -1 | 1002 | -1 | 310 | 2329 | -1 | 2966 | 388 |
| 95 2 1 | -1 | -1 | 1032 | -1 | 362 | 2475 | -1 | 3011 | 389 |
| 95 3 1 | -1 | -1 | 1068 | -1 | 331 | 2516 | -1 | 3056 | 390 |
| 95 4 1 | -1 | -1 | 1040 | -1 | 331 | 2943 | -1 | 3101 | 391 |
| 95 5 1 | -1 | -1 | 1040 | -1 | 317 | 715 | -1 | 3146 | 392 |
| 95 6 1 | -1 | -1 | 1063 | -1 | 306 | 2308 | -1 | 3191 | 393 |
| 95 7 1 | -1 | -1 | 941 | -1 | 216 | 1798 | -1 | 3231 | 394 |
| 95 8 1 | -1 | -1 | 1177 | -1 | 365 | 1830 | -1 | 3097 | 395 |
| 95 9 1 | -1 | -1 | 1252 | -1 | 260 | 2005 | -1 | 2963 | 396 |
| 9510 1 | -1 | -1 | 1252 | -1 | 366 | 1576 | -1 | 2829 | 397 |
| 9511 1 | -1 | -1 | 1246 | -1 | 284 | 1649 | -1 | 2696 | 398 |
| 9512 1 | -1 | -1 | 1275 | -1 | 298 | 1707 | -1 | 2817 | 399 |
| 9513 1 | -1 | -1 | 437 | -1 | 302 | 10 | -1 | 2938 | 400 |
| 9514 1 | -1 | -1 | 669 | -1 | 274 | 2106 | 4172 | 3059 | 401 |
| 9515 1 | -1 | -1 | 468 | -1 | 179 | 2743 | 6278 | 3180 | 402 |
| 9516 1 | -1 | -1 | 617 | -1 | 208 | 2226 | 5752 | 3301 | 403 |
| 9517 1 | -1 | -1 | 398 | -1 | 206 | 2501 | 7248 | 3422 | 404 |
| 9518 1 | -1 | -1 | 473 | -1 | 267 | 2865 | 7535 | 3543 | 405 |
| 9519 1 | -1 | -1 | 1456 | -1 | 350 | 58 | 8737 | 3664 | 406 |
| 9520 1 | -1 | -1 | 1272 | -1 | 378 | 2089 | 8207 | 3785 | 407 |
| 9521 1 | -1 | -1 | 1354 | -1 | 269 | 2533 | 8787 | 3843 | 408 |
| 9522 1 | -1 | -1 | 1431 | -1 | 325 | 2012 | 9420 | 3901 | 409 |
| 9523 1 | -1 | -1 | 1473 | -1 | 304 | 1616 | 8278 | 3959 | 410 |
| 9524 1 | -1 | -1 | 1324 | -1 | 333 | 1657 | 8067 | 4017 | 411 |
| 9525 1 | -1 | -1 | 1204 | -1 | 326 | 1647 | 7639 | 4073 | 412 |
| 9526 1 | -1 | -1 | 2261 | -1 | 399 | 1440 | -1 | 4131 | 413 |
| 9527 1 | -1 | -1 | 2245 | -1 | 549 | 1668 | -1 | 4189 | 414 |
| 9528 1 | -1 | -1 | 851 | -1 | 562 | 3723 | 7481 | 4247 | 415 |
| 9529 1 | -1 | -1 | 809 | -1 | 598 | 3338 | 7530 | 4305 | 416 |
| 9530 1 | -1 | -1 | 143 | -1 | 21 | 123 | 9229 | 4365 | 417 |
| 9531 1 | -1 | -1 | 22 | -1 | 986 | 39 | 10885 | 4432 | 418 |
| 9532 1 | -1 | -1 | 2656 | -1 | 762 | 6088 | 15788 | 4499 | 419 |
| 9533 1 | -1 | -1 | 2726 | -1 | 832 | 6335 | -1 | 4566 | 420 |
| 9534 1 | -1 | -1 | 2707 | -1 | 837 | 4887 | -1 | 4633 | 421 |
| 9535 1 | -1 | -1 | 1047 | -1 | 682 | 9716 | 20551 | 4700 | 422 |
| 9536 1 | -1 | -1 | 1134 | -1 | 640 | 9229 | 19298 | 4773 | 423 |
| 9537 1 | -1 | -1 | 1109 | -1 | 615 | 9079 | 19268 | 4846 | 424 |
| 9538 1 | -1 | -1 | 951 | -1 | 503 | 9312 | 17064 | 4919 | 425 |
| 9539 1 | -1 | -1 | 966 | -1 | 527 | 8466 | 17791 | 4992 | 426 |
| 9540 1 | -1 | -1 | 1024 | -1 | 562 | 7907 | 17386 | 5063 | 427 |
| 9541 1 | -1 | -1 | 1006 | -1 | 566 | 6996 | 17321 | 5154 | 428 |
| 9542 1 | -1 | -1 | 1152 | -1 | 578 | 7753 | 20318 | 5244 | 429 |
| 9543 1 | -1 | -1 | 987 | -1 | 671 | 8067 | 19701 | 5341 | 430 |
| 9544 1 | -1 | -1 | 1069 | -1 | 577 | 7155 | 17123 | 5440 | 431 |
| 9545 1 | -1 | -1 | 747 | -1 | 526 | 6679 | 16630 | 5541 | 432 |
| 9546 1 | -1 | -1 | 848 | -1 | 501 | 5318 | 17548 | 5643 | 433 |
| 9547 1 | -1 | -1 | 811 | -1 | 561 | 5572 | 19867 | 5748 | 434 |
| 9548 1 | -1 | -1 | 943 | -1 | 601 | 5448 | 19768 | 5854 | 435 |
| 9549 1 | -1 | -1 | 978 | -1 | 615 | 5000 | 29859 | 5962 | 436 |
| 9550 1 | -1 | -1 | 720 | -1 | 395 | 5170 | 19121 | 6073 | 437 |
| 9551 1 | -1 | -1 | 710 | -1 | 779 | 4747 | 20680 | 6185 | 438 |
| 9552 1 | -1 | -1 | 2361 | -1 | 789 | 3445 | 19335 | 6299 | 439 |
| 9553 1 | -1 | -1 | 696 | -1 | 877 | 4483 | 17952 | 6460 | 440 |
| 9554 1 | -1 | -1 | 629 | -1 | 1018 | 4890 | 19718 | 6620 | 441 |
| 9555 1 | -1 | -1 | 661 | -1 | 995 | 5548 | 20510 | 6790 | 442 |
| 9556 1 | -1 | -1 | 2057 | -1 | 902 | 3388 | 20810 | 6962 | 443 |
| 9557 1 | -1 | -1 | 633 | -1 | 385 | 4147 | -1 | 7137 | 444 |
| 9558 1 | -1 | -1 | 642 | -1 | 1036 | 5407 | -1 | 7316 | 445 |
| 9559 1 | -1 | -1 | 312 | -1 | 518 | 2414 | -1 | 7500 | 446 |
| 9560 1 | -1 | -1 | 554 | -1 | -1 | 5016 | -1 | 7689 | 447 |
| 9561 1 | -1 | -1 | 756 | -1 | 926 | 6080 | 15129 | 7858 | 448 |
| 9562 1 | -1 | -1 | 657 | -1 | 920 | 5016 | 14690 | 8029 | 449 |
| 9563 1 | -1 | -1 | 651 | -1 | 963 | 5828 | -1 | 8217 | 450 |
| 9564 1 | -1 | -1 | 489 | -1 | 772 | 5421 | -1 | 8492 | 451 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 9565 | 1 | -1 | -1 | 603 | -1 | 1011 | 6453 | -1 | 8710 | 452 |
| 9566 | 1 | -1 | -1 | 541 | -1 | 893 | 4021 | -1 | 8920 | 453 |
| 9567 | 1 | -1 | -1 | 640 | -1 | 842 | 4140 | -1 | 9140 | 454 |
| 9568 | 1 | -1 | -1 | 711 | -1 | 684 | 4105 | -1 | 9350 | 455 |
| 9569 | 1 | -1 | -1 | 652 | -1 | 542 | 4460 | -1 | 9570 | 456 |
| 9570 | 1 | -1 | -1 | 587 | -1 | 418 | 4737 | -1 | 9720 | 457 |
| 9571 | 1 | -1 | -1 | 763 | -1 | 474 | 4857 | -1 | 9880 | 458 |
| 9572 | 1 | -1 | -1 | 823 | -1 | 542 | -1 | 6313 | 10040 | 459 |
| 9573 | 1 | -1 | -1 | 710 | -1 | 583 | -1 | 5958 | 10230 | 460 |
| 9574 | 1 | -1 | -1 | 426 | -1 | 723 | -1 | 5806 | 10430 | 461 |
| 10052 | 1 | 553 | -1 | -1 | -1 | 2534 | 126 | 6657 | 8000 | 464 |
| 10053 | 1 | 491 | -1 | -1 | -1 | 3449 | 182 | 8668 | 8261 | 465 |
| 10054 | 1 | 637 | -1 | -1 | -1 | 5760 | 250 | 10845 | 8617 | 466 |
| 10055 | 1 | 942 | -1 | -1 | -1 | 5865 | 192 | 12708 | 8907 | 467 |
| 10056 | 1 | 947 | -1 | -1 | -1 | 6886 | 317 | 12782 | 9240 | 468 |
| 10057 | 1 | 921 | -1 | -1 | -1 | 5719 | 209 | 12098 | 9506 | 469 |
| 10058 | 1 | 1022 | -1 | -1 | -1 | 6545 | 226 | 12516 | 9851 | 470 |
| 10059 | 1 | 1199 | -1 | -1 | -1 | 6616 | 303 | 13180 | 10232 | 471 |
| 10060 | 1 | 1440 | -1 | -1 | -1 | 7734 | 260 | 13685 | 10612 | 472 |
| 10061 | 1 | 1511 | -1 | -1 | -1 | 8086 | 337 | 15549 | 10971 | 473 |
| 10062 | 1 | 1556 | -1 | -1 | -1 | 7827 | 406 | 16410 | 11349 | 474 |
| 10063 | 1 | 1702 | -1 | -1 | -1 | 8074 | 465 | 18274 | 11696 | 475 |
| 10064 | 1 | 1753 | -1 | -1 | -1 | 8435 | 319 | 18650 | 12070 | 476 |
| 1006501 | 2042 | -1 | -1 | -1 | 8927 | 277 | 18262 | 12427 | | 477 |
| 1006601 | 2345 | -1 | -1 | -1 | 9210 | 318 | 17161 | 12784 | | 478 |
| 1006701 | 2419 | -1 | -1 | -1 | 9204 | 313 | 14101 | 13141 | | 479 |
| 1006801 | 2469 | -1 | -1 | -1 | 8763 | 466 | 13840 | 13498 | | 480 |
| 1006901 | 3027 | -1 | -1 | -1 | 9768 | 375 | 15589 | 13855 | | 481 |
| 10538 | 1 | -1 | -1 | 2700 | -1 | 14083 | 2317 | 4257 | 8736 | 487 |
| 10539 | 1 | -1 | -1 | 2922 | -1 | 14209 | 3101 | 6128 | 8915 | 488 |
| 10540 | 1 | -1 | -1 | 2450 | -1 | 13352 | 2924 | 6026 | 9094 | 489 |
| 10541 | 1 | -1 | -1 | 2841 | -1 | 14229 | 2691 | 5449 | 9299 | 490 |
| 10542 | 1 | -1 | -1 | 2599 | -1 | 14195 | 3487 | 6096 | 9504 | 491 |
| 10543 | 1 | -1 | -1 | 2483 | -1 | 13679 | 3753 | 7402 | 9716 | 492 |
| 10544 | 1 | -1 | -1 | 2495 | -1 | 14964 | 3617 | 9139 | 9932 | 493 |
| 10545 | 1 | -1 | -1 | 2687 | -1 | 16189 | 3533 | 9973 | 10153 | 494 |
| 10546 | 1 | -1 | -1 | 3321 | -1 | 20668 | 4418 | 12030 | 10380 | 495 |
| 10547 | 1 | -1 | -1 | 3787 | -1 | 21884 | 4704 | 11916 | 10611 | 496 |
| 10548 | 1 | -1 | -1 | 4267 | -1 | 20184 | 5379 | 10064 | 10848 | 497 |
| 10549 | 1 | -1 | -1 | 4967 | -1 | 18056 | 4866 | 8807 | 11089 | 498 |
| 10550 | 1 | -1 | -1 | 6319 | -1 | 18371 | 3860 | 10639 | 11336 | 499 |
| 10551 | 1 | -1 | -1 | 6129 | -1 | 19417 | 6651 | 11662 | 11589 | 500 |
| 10552 | 1 | -1 | -1 | 6881 | -1 | 21808 | 6672 | 11338 | 11847 | 501 |
| 10553 | 1 | -1 | -1 | 7742 | -1 | 25304 | 7214 | 12420 | 12070 | 502 |
| 10554 | 1 | -1 | -1 | 5919 | -1 | 24509 | 7468 | 14110 | 12340 | 503 |
| 10555 | 1 | -1 | -1 | 8342 | -1 | 30469 | 9908 | 18504 | 13170 | 504 |
| 10556 | 1 | -1 | -1 | 8141 | -1 | 30945 | 10773 | 20845 | 13590 | 505 |
| 10557 | 1 | -1 | -1 | 6525 | -1 | 28259 | 9908 | 22085 | 14030 | 506 |
| 10558 | 1 | -1 | -1 | 7797 | -1 | 30624 | 16440 | 23168 | 14480 | 507 |
| 10559 | 1 | -1 | -1 | 6611 | -1 | 31936 | 17168 | 23220 | 14940 | 508 |
| 10560 | 1 | -1 | -1 | 5981 | -1 | 31783 | 16113 | 24517 | 15420 | 509 |
| 10561 | 1 | -1 | -1 | 5497 | -1 | 33080 | 16105 | 23806 | 15910 | 510 |
| 10562 | 1 | -1 | -1 | 7778 | -1 | 42085 | 18927 | 27778 | 16420 | 511 |
| 10563 | 1 | -1 | -1 | 7862 | -1 | 38633 | 18935 | 27993 | 16940 | 512 |
| 10564 | 1 | -1 | -1 | 8210 | -1 | 36902 | 19602 | 28431 | 17480 | 513 |
| 10565 | 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 514 |
| 10566 | 1 | -1 | -1 | 9132 | -1 | 25329 | 29048 | 28898 | 18620 | 515 |
| 10567 | 1 | -1 | -1 | 10949 | -1 | 28397 | 32229 | 34211 | 19220 | 516 |
| 12061 | 1 | 76 | -1 | -1 | 151 | -1 | 1769 | 1641 | 580 | 535 |
| 12062 | 1 | 41 | -1 | -1 | 172 | -1 | 1320 | 1503 | 592 | 536 |
| 12063 | 1 | 180 | -1 | -1 | 148 | -1 | 1046 | 1581 | 590 | 537 |
| 12064 | 1 | 231 | -1 | -1 | 50 | -1 | 1011 | 1475 | 594 | 538 |
| 12065 | 1 | 41 | -1 | -1 | 74 | -1 | 553 | 1198 | 598 | 539 |
| 12066 | 1 | 43 | -1 | -1 | 109 | -1 | 399 | 1431 | 607 | 540 |
| 12067 | 1 | 45 | -1 | -1 | 85 | -1 | 350 | 1268 | 614 | 541 |
| 12068 | 1 | 33 | -1 | -1 | 144 | 1 | 405 | 1220 | 624 | 542 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 12069 1 | 20 | -1 | -1 | 99 | -1 | 393 | 1110 | 631 | 543 |
| 12070 1 | 20 | -1 | -1 | 71 | -1 | 373 | 1209 | 642 | 544 |
| 13021 1 | -1 | -1 | -1 | 1262 | 938 | -1 | 30249 | 3279 | 555 |
| 13022 1 | -1 | -1 | -1 | 1190 | 1092 | -1 | 28299 | 3315 | 556 |
| 13023 1 | -1 | -1 | -1 | 1191 | 1135 | -1 | 30804 | 3351 | 557 |
| 13024 1 | -1 | -1 | -1 | 1306 | 1329 | -1 | 32804 | 3387 | 558 |
| 13025 1 | -1 | -1 | -1 | 1551 | 1371 | -1 | 38244 | 3425 | 559 |
| 13026 1 | -1 | -1 | -1 | 1496 | 1244 | -1 | 41630 | 3448 | 560 |
| 13027 1 | -1 | -1 | -1 | 1345 | 1272 | -1 | 46136 | 3471 | 561 |
| 13028 1 | -1 | -1 | -1 | 1595 | 1276 | -1 | 51259 | 3494 | 562 |
| 13029 1 | -1 | -1 | -1 | 1607 | 1192 | -1 | 48840 | 3517 | 563 |
| 13030 1 | -1 | -1 | -1 | 1570 | 1293 | -1 | 54094 | 3542 | 564 |
| 13031 1 | -1 | -1 | -1 | 1635 | 1275 | -1 | 53763 | 3573 | 565 |
| 13032 1 | -1 | -1 | -1 | 2028 | 1359 | -1 | 55336 | 3604 | 566 |
| 13033 1 | 20 | -1 | -1 | 495 | 1376 | 55 | 59456 | 3635 | 567 |
| 13034 1 | 16 | -1 | -1 | 747 | 1484 | 40 | 61014 | 3666 | 568 |
| 13035 1 | 18 | -1 | -1 | 1047 | 1380 | 48 | 59195 | 3695 | 569 |
| 13036 1 | 29 | -1 | -1 | 877 | 1568 | 34 | 59104 | 3722 | 570 |
| 13037 1 | 20 | -1 | -1 | 1058 | 1535 | 30 | 59694 | 3749 | 571 |
| 13038 1 | 15 | -1 | -1 | 873 | 1446 | 43 | 60437 | 3776 | 572 |
| 13039 1 | 11 | -1 | -1 | 1009 | 1341 | 32 | 61047 | 3803 | 573 |
| 13040 1 | 20 | -1 | -1 | 464 | 1304 | 46 | 77422 | 3832 | 574 |
| 13041 1 | 15 | -1 | -1 | 633 | 1614 | 102 | 109252 | 3868 | 575 |
| 13042 1 | 21 | -1 | -1 | 930 | 1934 | 110 | 127489 | 3903 | 576 |
| 13043 1 | 13 | -1 | -1 | 793 | 2338 | 197 | 137371 | 3949 | 577 |
| 13044 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 578 |
| 13045 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 579 |
| 13046 1 | 51 | -1 | -1 | 773 | 1497 | 339 | 97226 | 4101 | 580 |
| 13047 1 | 53 | -1 | -1 | 763 | 1472 | 298 | 93402 | 4146 | 581 |
| 13048 1 | 47 | -1 | -1 | 944 | 1609 | 223 | 93543 | 4190 | 582 |
| 13049 1 | 67 | -1 | -1 | 1000 | 1557 | 254 | 85562 | 4231 | 583 |
| 13050 1 | 65 | -1 | -1 | 1328 | 1613 | 189 | 81690 | 4270 | 584 |
| 13051 1 | 58 | -1 | -1 | 1501 | 1638 | 166 | 95699 | 4304 | 585 |
| 13052 1 | 66 | -1 | -1 | 1499 | 1663 | 168 | 90393 | 4334 | 586 |
| 13053 1 | 82 | -1 | -1 | 1428 | 1719 | 179 | 86142 | 4369 | 587 |
| 13054 1 | 46 | -1 | -1 | 1354 | 1838 | 106 | 80686 | 4406 | 588 |
| 13055 1 | 50 | -1 | -1 | 1600 | 1289 | 116 | 85367 | 4439 | 589 |
| 13056 1 | 61 | -1 | -1 | 1350 | 1649 | 102 | 83832 | 4466 | 590 |
| 13057 1 | 59 | -1 | -1 | 1267 | 1694 | 125 | 87833 | 4488 | 591 |
| 13058 1 | 56 | -1 | -1 | 1162 | 1839 | 154 | 87819 | 4515 | 592 |
| 13059 1 | 38 | -1 | -1 | 1336 | 1944 | 113 | 91016 | 4547 | 593 |
| 13060 1 | 38 | -1 | -1 | 2884 | 1632 | 344 | 87164 | 4581 | 594 |
| 13061 1 | 34 | -1 | -1 | 2751 | 1572 | 156 | 60066 | 4610 | 595 |
| 13062 1 | 50 | -1 | -1 | 189 | 1501 | 168 | 64473 | 4647 | 596 |
| 13063 1 | 62 | -1 | -1 | 173 | 1621 | 184 | 70479 | 4684 | 597 |
| 13064 1 | 35 | -1 | -1 | 259 | 1799 | 227 | 72336 | 4720 | 598 |
| 13065 1 | 49 | -1 | -1 | 162 | 1944 | 232 | 74916 | 4760 | 599 |
| 13066 1 | 32 | -1 | -1 | 215 | 1982 | 230 | 76057 | 4800 | 600 |
| 13067 1 | 55 | -1 | -1 | 203 | 1892 | 266 | 86840 | 4840 | 601 |
| 13068 1 | 54 | -1 | -1 | 217 | 1999 | 342 | 98868 | 4860 | 602 |
| 13069 1 | 32 | -1 | -1 | 236 | 2239 | 309 | 106751 | 4890 | 603 |
| 14053 1 | 2307 | -1 | -1 | 320 | -1 | 683 | -1 | 22062 | 613 |
| 14054 1 | 2231 | -1 | -1 | 263 | -1 | 541 | -1 | 23651 | 614 |
| 14055 1 | 2128 | -1 | -1 | 285 | -1 | 438 | -1 | 23083 | 615 |
| 14056 1 | 2243 | -1 | -1 | 177 | -1 | 410 | -1 | 23643 | 616 |
| 14057 1 | 1808 | -1 | -1 | 166 | -1 | 454 | -1 | 24179 | 617 |
| 14058 1 | 3090 | -1 | -1 | 206 | -1 | 446 | -1 | 24666 | 618 |
| 14059 1 | 2843 | -1 | -1 | 160 | -1 | 394 | -1 | 25324 | 619 |
| 14060 1 | 2269 | -1 | -1 | 154 | -1 | 419 | -1 | 25951 | 620 |
| 14061 1 | 2116 | -1 | -1 | 134 | -1 | 321 | -1 | 26567 | 621 |
| 14062 1 | 1521 | -1 | -1 | 111 | -1 | 166 | -1 | 27243 | 622 |
| 14063 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 623 |
| 14064 1 | 1198 | -1 | -1 | 117 | -1 | 117 | -1 | 28660 | 624 |
| 14065 1 | 1262 | -1 | -1 | 120 | -1 | 120 | 58248 | 29390 | 625 |
| 14066 1 | 1160 | -1 | -1 | 366 | -1 | 92 | 44266 | 30140 | 626 |
| 14067 1 | 1152 | -1 | -1 | 156 | -1 | 125 | 39813 | 30910 | 627 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 14068 | 1 | 1541 | -1 | -1 | 160 | -1 | 193 | 46183 | 31690 | 628 |
| 14069 | 1 | 1446 | -1 | -1 | 193 | -1 | 257 | 49289 | 32500 | 629 |
| 14070 | 1 | 1228 | -1 | -1 | 166 | -1 | 232 | 45170 | 33330 | 630 |
| 14534 | 1 | 594 | -1 | -1 | -1 | 2066 | 350 | 833 | 1515 | 634 |
| 14535 | 1 | 565 | -1 | -1 | -1 | 1866 | 219 | 770 | 1531 | 635 |
| 14536 | 1 | 715 | -1 | -1 | -1 | 2449 | 199 | 495 | 1551 | 636 |
| 14537 | 1 | 771 | -1 | -1 | -1 | 2474 | 309 | 553 | 1571 | 637 |
| 14538 | 1 | 624 | -1 | -1 | -1 | 2319 | 244 | 546 | 1591 | 638 |
| 14539 | 1 | 573 | -1 | -1 | -1 | 2269 | 209 | 493 | 1611 | 639 |
| 14540 | 1 | 454 | -1 | -1 | -1 | 2183 | 261 | 667 | 1633 | 640 |
| 14541 | 1 | 414 | -1 | -1 | -1 | 2275 | 281 | 564 | 1654 | 641 |
| 14542 | 1 | 570 | -1 | -1 | -1 | 2701 | 321 | 765 | 1675 | 642 |
| 14543 | 1 | 498 | -1 | -1 | -1 | 2656 | 378 | 1050 | 1697 | 643 |
| 14544 | 1 | 672 | -1 | -1 | -1 | 3038 | 362 | 1192 | 1719 | 644 |
| 14545 | 1 | 687 | -1 | -1 | -1 | 2370 | 521 | 1300 | 1742 | 645 |
| 14546 | 1 | 449 | -1 | -1 | -1 | 2321 | 329 | 1004 | 1764 | 646 |
| 14547 | 1 | 553 | -1 | -1 | -1 | 2742 | 301 | 970 | 1788 | 647 |
| 14548 | 1 | 649 | -1 | -1 | -1 | 3122 | 341 | 1061 | 1811 | 648 |
| 14549 | 1 | 732 | -1 | -1 | -1 | 3090 | 359 | 934 | 1835 | 649 |
| 14550 | 1 | 673 | -1 | -1 | -1 | 3450 | 348 | 1310 | 1868 | 650 |
| 14551 | 1 | 814 | -1 | -1 | -1 | 4226 | 433 | 1482 | 1920 | 651 |
| 14552 | 1 | 812 | -1 | -1 | -1 | 4397 | 365 | 1412 | 1986 | 652 |
| 14553 | 1 | 798 | -1 | -1 | -1 | 4691 | 388 | 1285 | 2054 | 653 |
| 14554 | 1 | 775 | -1 | -1 | -1 | 5060 | 389 | 1406 | 2122 | 654 |
| 14555 | 1 | 805 | -1 | -1 | -1 | 4696 | 404 | 1374 | 2135 | 655 |
| 14556 | 1 | 932 | -1 | -1 | -1 | 4916 | 294 | 1149 | 2196 | 656 |
| 14557 | 1 | 691 | -1 | -1 | -1 | 4201 | 300 | 1146 | 2257 | 657 |
| 14558 | 1 | 774 | -1 | -1 | -1 | 4478 | 367 | 1381 | 2321 | 658 |
| 14559 | 1 | 794 | -1 | -1 | -1 | 4317 | 428 | 1601 | 2386 | 659 |
| 14560 | 1 | 763 | -1 | -1 | -1 | 4098 | 473 | 1385 | 2454 | 660 |
| 14561 | 1 | 893 | -1 | -1 | -1 | 4559 | 441 | 1296 | 2526 | 661 |
| 14562 | 1 | 869 | -1 | -1 | -1 | 4501 | 368 | 1255 | 2627 | 662 |
| 14563 | 1 | 862 | -1 | -1 | -1 | 4207 | 447 | 1416 | 2721 | 663 |
| 14564 | 1 | 827 | -1 | -1 | -1 | 4486 | 439 | 1325 | 2824 | 664 |
| 14565 | 1 | 861 | -1 | -1 | -1 | 4284 | 422 | 1237 | 2930 | 665 |
| 14566 | 1 | 844 | -1 | -1 | -1 | 3945 | 426 | 1563 | 3040 | 666 |
| 14567 | 1 | 860 | -1 | -1 | -1 | 4231 | 528 | 1474 | 3150 | 667 |
| 14568 | 1 | 790 | -1 | -1 | -1 | 4650 | 616 | 1475 | 3270 | 668 |
| 150 0 | 1 | 136 | 176 | -1 | 231 | 1260 | 256 | 59736 | 32173 | 671 |
| 150 1 | 1 | 161 | 180 | -1 | 236 | 1307 | 234 | 60863 | 32527 | 672 |
| 150 2 | 1 | 148 | 181 | -1 | 216 | 1295 | 274 | 62134 | 32881 | 673 |
| 150 3 | 1 | 171 | 141 | -1 | 190 | 1221 | 241 | 63613 | 33235 | 674 |
| 150 4 | 1 | 160 | 156 | -1 | 213 | 1096 | 251 | 68837 | 33589 | 675 |
| 150 5 | 1 | 137 | 150 | -1 | 172 | 1171 | 223 | 70177 | 33943 | 676 |
| 150 6 | 1 | 134 | 129 | -1 | 203 | 1311 | 242 | 67012 | 34297 | 677 |
| 150 7 | 1 | 132 | 141 | -1 | 185 | 1433 | 232 | 72776 | 34651 | 678 |
| 150 8 | 1 | 159 | 162 | -1 | 202 | 1332 | 310 | 76837 | 35005 | 679 |
| 150 9 | 1 | 161 | 139 | -1 | 172 | 1369 | 226 | 75927 | 35359 | 680 |
| 15010 | 1 | 148 | 140 | -1 | 156 | 1325 | 211 | 73916 | 35713 | 681 |
| 15011 | 1 | 144 | 147 | -1 | 146 | 1368 | 198 | 69345 | 36070 | 682 |
| 15012 | 1 | 152 | 159 | -1 | 175 | 1359 | 195 | 73841 | 36240 | 683 |
| 15013 | 1 | 178 | 154 | -1 | 177 | 1222 | 195 | 69942 | 36410 | 684 |
| 15014 | 1 | 141 | 128 | -1 | 154 | 1084 | 133 | 63667 | 36580 | 685 |
| 15015 | 1 | 130 | 149 | -1 | 124 | 769 | 85 | 57766 | 36750 | 686 |
| 15016 | 1 | 146 | 111 | -1 | 98 | 572 | 114 | 60768 | 36920 | 687 |
| 15017 | 1 | 127 | 99 | -1 | 74 | 388 | 134 | 67104 | 37090 | 688 |
| 15018 | 1 | 131 | 73 | -1 | 78 | 420 | 100 | 65296 | 37260 | 689 |
| 15019 | 1 | 176 | 122 | -1 | 121 | 761 | 203 | 60673 | 37430 | 690 |
| 15020 | 1 | 179 | 134 | -1 | 130 | 826 | 235 | 69408 | 37596 | 691 |
| 15021 | 1 | 138 | 113 | -1 | 128 | 742 | 211 | 70637 | 37864 | 692 |
| 15022 | 1 | 145 | 98 | -1 | 118 | 635 | 164 | 70923 | 38132 | 693 |
| 15023 | 1 | 150 | 109 | -1 | 110 | 646 | 151 | 73145 | 38400 | 694 |
| 15024 | 1 | 150 | 110 | -1 | 116 | 646 | 122 | 74742 | 38668 | 695 |
| 15025 | 1 | 160 | 133 | -1 | 94 | 774 | 136 | 75839 | 38935 | 696 |
| 15026 | 1 | 154 | 128 | -1 | 125 | 1067 | 120 | 90910 | 39108 | 697 |
| 15027 | 1 | 113 | 133 | -1 | 113 | 1162 | 110 | 82603 | 39281 | 698 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 15028 1 | 136 | 122 | -1 | 107 | 1264 | 128 | 84566 | 39454 | 699 |
| 15029 1 | 131 | 157 | -1 | 89 | 1342 | 167 | 87156 | 39627 | 700 |
| 15030 1 | 122 | 162 | -1 | 89 | 1470 | 217 | 94716 | 39801 | 701 |
| 15031 1 | 138 | 124 | -1 | 90 | 1374 | 208 | 100718 | 39970 | 702 |
| 15032 1 | 128 | 141 | -1 | 72 | 1277 | 342 | 137980 | 40139 | 703 |
| 15033 1 | 141 | 192 | -1 | 75 | 1483 | 219 | 153711 | 40308 | 704 |
| 15034 1 | 141 | 191 | -1 | 84 | 1609 | 215 | 164488 | 40477 | 705 |
| 15035 1 | 120 | 171 | -1 | 104 | 1765 | 182 | 165003 | 40645 | 706 |
| 15036 1 | 145 | 197 | -1 | 99 | 1807 | 189 | 176653 | 40888 | 707 |
| 15037 1 | 114 | 171 | -1 | 108 | 1983 | 209 | 188962 | 41131 | 708 |
| 15038 1 | 116 | 172 | -1 | 99 | 2020 | 287 | 199951 | 41374 | 709 |
| 15039 1 | 156 | 165 | -1 | 109 | 2179 | 265 | 219478 | 41617 | 710 |
| 15040 1 | 123 | 134 | -1 | 125 | 1794 | 342 | 225671 | 41862 | 711 |
| 15041 1 | 146 | 145 | -1 | 169 | 1931 | 483 | 268738 | 41880 | 712 |
| 15042 1 | 209 | 158 | -1 | 200 | 2035 | 685 | 267789 | 41897 | 713 |
| 15043 1 | 174 | 114 | -1 | 257 | 2303 | 730 | 272186 | 42259 | 714 |
| 15044 1 | 166 | 147 | -1 | 316 | 2749 | 821 | 297930 | 42449 | 715 |
| 15045 1 | 218 | 217 | -1 | 377 | 3292 | 1033 | 323310 | 42636 | 716 |
| 15046 1 | 148 | 151 | -1 | 251 | 3020 | 921 | 310650 | 42700 | 717 |
| 15047 1 | 175 | 138 | -1 | 240 | 3495 | 979 | 330918 | 43050 | 718 |
| 15048 1 | 171 | 138 | -1 | 252 | 4224 | 1101 | 349358 | 43502 | 719 |
| 15049 1 | 136 | 131 | -1 | 233 | 4376 | 890 | 301591 | 43765 | 720 |
| 15050 1 | 138 | 176 | -1 | 314 | 5258 | 1021 | 301075 | 43830 | 721 |
| 15051 1 | 132 | 176 | -1 | 335 | 5619 | 900 | 355407 | 43815 | 722 |
| 15052 1 | 146 | 233 | -1 | 260 | 5980 | 1002 | 341512 | 43955 | 723 |
| 15053 1 | 143 | 158 | -1 | 295 | 6187 | 980 | 308578 | 44109 | 724 |
| 15054 1 | 146 | 138 | -1 | 294 | 6586 | 812 | 285199 | 44274 | 725 |
| 15055 1 | 135 | 122 | -1 | 340 | 7076 | 823 | 395035 | 44441 | 726 |
| 15056 1 | 156 | 142 | -1 | 329 | 8433 | 965 | 323861 | 44631 | 727 |
| 15057 1 | 166 | 147 | -1 | 408 | 9774 | 1194 | 360985 | 45043 | 728 |
| 1505801 | 137 | 108 | -1 | 391 | 10945 | 1692 | 409388 | 45244 | 729 |
| 15059 1 | 149 | 92 | -1 | 512 | 12707 | 1900 | 445 | 45504 | 730 |
| 15060 1 | 153 | 108 | -1 | 515 | 14391 | 2014 | 489258 | 45862 | 731 |
| 15061 1 | 147 | 105 | -1 | 503 | 16197 | 2349 | 531430 | 46308 | 732 |
| 15062 1 | 159 | 114 | -1 | 473 | 16430 | 2517 | 588966 | 46807 | 733 |
| 15063 1 | 153 | 135 | -1 | 422 | 18685 | 2483 | 635627 | 47124 | 734 |
| 15064 1 | 170 | 108 | -1 | 517 | 21868 | 3066 | 704116 | 47340 | 735 |
| 15065 1 | 171 | 134 | -1 | 618 | 23876 | 3736 | 744155 | 47690 | 736 |
| 1506601 | 169 | 172 | -1 | 644 | 25027 | 4474 | 775990 | 47990 | 737 |
| 15067 1 | 200 | 193 | -1 | 702 | 27123 | 4564 | 784093 | 48300 | 738 |
| 15068 1 | 203 | 196 | -1 | 829 | 30094 | 4815 | 826311 | 48590 | 739 |
| 15069 1 | 182 | 188 | -1 | 869 | 35926 | 6041 | 876710 | 48630 | 740 |
| 15070 1 | 186 | 181 | -1 | 884 | 39266 | 6273 | 914723 | 48990 | 741 |
| 15071 1 | 247 | 193 | -1 | 784 | 45165 | 7465 | 962992 | 48820 | 742 |
| 15072 1 | 251 | 204 | -1 | 893 | 50519 | 8126 | -1 | 49030 | 743 |
| 16062 1 | 13 | -1 | -1 | 248 | -1 | 372 | 539 | 427 | 755 |
| 16063 1 | 9 | -1 | -1 | 190 | -1 | 327 | 1443 | 441 | 756 |
| 16064 1 | 14 | -1 | -1 | 78 | -1 | 306 | 799 | 456 | 757 |
| 16065 1 | 5 | -1 | -1 | 70 | -1 | 158 | 673 | 464 | 758 |
| 16066 1 | 9 | -1 | -1 | 80 | -1 | 207 | 714 | 469 | 759 |
| 16067 1 | 15 | -1 | -1 | 75 | -1 | 387 | 533 | 502 | 760 |
| 16068 1 | 10 | -1 | -1 | 118 | -1 | 51 | 159 | 512 | 761 |
| 16069 1 | 11 | -1 | -1 | 116 | -1 | 437 | 1201 | 526 | 762 |
| 16070 1 | 16 | -1 | -1 | 178 | -1 | 618 | 1773 | 524 | 763 |
| 1651401 | 61 | 33 | -1 | -1 | 1356 | 61 | 1524 | 3122 | 767 |
| 1651501 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 768 |
| 1651601 | 38 | 37 | -1 | -1 | 749 | 33 | 2068 | 3125 | 769 |
| 1651701 | 32 | 31 | -1 | -1 | 832 | 40 | 3938 | 3127 | 770 |
| 1651801 | 42 | 86 | -1 | -1 | 248 | 33 | 3802 | 3129 | 771 |
| 1651901 | 62 | 38 | -1 | -1 | 502 | 42 | 5020 | 3131 | 772 |
| 1652001 | 69 | 50 | -1 | -1 | 747 | 50 | 2978 | 3133 | 773 |
| 1652101 | 121 | 47 | -1 | -1 | 820 | 65 | 2454 | 3167 | 774 |
| 1652201 | 106 | 46 | -1 | -1 | 921 | 35 | 1735 | 3201 | 775 |
| 1652301 | 103 | 60 | -1 | -1 | 869 | 56 | 1445 | 3235 | 776 |
| 1652401 | 95 | 45 | -1 | -1 | 1100 | 54 | 1335 | 3269 | 777 |
| 1652501 | 109 | 62 | -1 | -1 | 1395 | 61 | 1686 | 3304 | 778 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1652601 | 91 | 55 | -1 | -1 | 1385 | 46 | 1719 | 3333 | | 779 |
| 16527 1 | 51 | 224 | -1 | 77 | 1271 | 298 | 3970 | 3362 | | 780 |
| 16528 1 | 74 | 262 | -1 | 77 | 1349 | 277 | 3458 | 3391 | | 781 |
| 16529 1 | 55 | 302 | -1 | 94 | 1511 | 276 | 4333 | 3420 | | 782 |
| 16530 1 | 60 | 275 | -1 | 104 | 1575 | 268 | 4633 | 3449 | | 783 |
| 16531 1 | 53 | 251 | -1 | 80 | 1747 | 308 | 5030 | 3474 | | 784 |
| 16532 1 | 71 | 263 | -1 | 77 | 1720 | 282 | 6698 | 3499 | | 785 |
| 16533 1 | 44 | 234 | -1 | 76 | 1853 | 286 | 6399 | 3524 | | 786 |
| 16534 1 | 54 | 171 | -1 | 93 | 1718 | 231 | 5384 | 3549 | | 787 |
| 16535 1 | 53 | 163 | -1 | 90 | 1604 | 197 | 5000 | 3576 | | 788 |
| 16536 1 | 60 | 131 | -1 | 91 | 1592 | 197 | 4511 | 3600 | | 789 |
| 16537 1 | 57 | 135 | -1 | 88 | 1580 | 197 | 4199 | 3624 | | 790 |
| 16538 1 | 50 | 120 | -1 | 86 | 1350 | 148 | 4178 | 3648 | | 791 |
| 16539 1 | 48 | 114 | -1 | 80 | 1101 | 120 | 3599 | 3672 | | 792 |
| 16540 1 | 38 | 114 | -1 | 47 | 872 | 282 | 5868 | 3698 | | 793 |
| 16541 1 | 39 | 116 | -1 | 41 | -1 | 328 | 6712 | 3703 | | 794 |
| 16542 1 | 38 | 107 | -1 | 48 | -1 | 461 | 9965 | 3708 | | 795 |
| 16543 1 | 61 | 107 | -1 | 70 | -1 | 580 | 8574 | 3721 | | 796 |
| 16544 1 | 54 | 126 | -1 | 86 | -1 | 901 | 11045 | 3735 | | 797 |
| 16545 1 | 84 | 186 | -1 | 123 | -1 | 1730 | 21747 | 3758 | | 798 |
| 16546 1 | 51 | 148 | -1 | 135 | -1 | 1097 | 16051 | 3806 | | 799 |
| 16547 1 | 63 | 115 | -1 | 124 | 1261 | 696 | 13486 | 3859 | | 800 |
| 16548 1 | 41 | 143 | -1 | 79 | 1038 | 468 | 9870 | 3912 | | 801 |
| 16549 1 | 38 | 95 | -1 | 171 | 969 | 332 | 6528 | 3963 | | 802 |
| 16550 1 | 29 | 108 | -1 | 158 | 956 | 259 | 5630 | 4009 | | 803 |
| 16551 1 | 34 | 77 | -1 | 183 | 940 | 193 | 4897 | 4047 | | 804 |
| 16552 1 | 38 | 94 | -1 | 79 | 937 | 188 | 2848 | 4091 | | 805 |
| 16553 1 | 50 | 74 | -1 | 172 | 929 | 211 | 5337 | 4141 | | 806 |
| 16554 1 | 40 | 76 | -1 | 157 | 778 | 221 | 4651 | 4190 | | 807 |
| 16555 1 | 39 | 71 | -1 | 163 | 802 | 186 | 4626 | 4238 | | 808 |
| 16556 1 | 23 | 80 | -1 | 118 | 643 | 186 | 5556 | 4282 | | 809 |
| 16557 1 | 25 | 74 | -1 | 161 | 634 | 204 | 7325 | 4324 | | 810 |
| 16558 1 | 33 | 63 | -1 | 158 | 677 | 226 | 7711 | 4360 | | 811 |
| 16559 1 | 12 | 67 | -1 | 181 | 719 | 254 | 7972 | 4395 | | 812 |
| 16560 1 | 37 | 72 | -1 | 222 | 674 | 294 | 7626 | 4430 | | 813 |
| 16561 1 | 18 | 79 | -1 | 211 | 631 | 250 | 5162 | 4467 | | 814 |
| 16562 1 | 21 | 88 | -1 | 186 | 701 | 268 | 8899 | 4505 | | 815 |
| 16563 1 | 19 | 75 | -1 | 237 | 681 | 351 | 10909 | 4543 | | 816 |
| 16564 1 | 16 | 71 | -1 | 299 | 692 | 315 | 12561 | 4586 | | 817 |
| 16565 1 | 20 | 59 | -1 | 320 | 742 | 334 | 13802 | 4610 | | 818 |
| 16566 1 | 14 | 80 | -1 | 371 | 794 | 444 | 12967 | 4640 | | 819 |
| 16567 1 | 12 | 80 | -1 | 386 | 774 | 607 | 16917 | 4670 | | 820 |
| 16568 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | | 821 |
| 16569 1 | 22 | 93 | -1 | 407 | 1111 | 809 | 19154 | 4700 | | 822 |
| 16570 1 | 14 | 42 | -1 | 325 | -1 | 947 | 21234 | 4690 | | 823 |
| 17031 1 | 330 | 2278 | -1 | 253 | 55 | 380 | 47105 | 41190 | | 829 |
| 17032 1 | 358 | 1753 | -1 | 250 | 92 | 165 | 46188 | 41290 | | 830 |
| 17033 1 | 378 | 2324 | -1 | 271 | 88 | 374 | 41379 | 41270 | | 831 |
| 17034 1 | 397 | 2744 | -1 | 297 | 98 | 355 | 38506 | 41310 | | 832 |
| 17035 1 | 414 | 2770 | -1 | 301 | 91 | 322 | 36810 | 41350 | | 833 |
| 17036 1 | 369 | 2389 | -1 | 286 | 117 | 341 | 35512 | 41040 | | 834 |
| 17037 1 | 289 | 2324 | -1 | 274 | 52 | 338 | 35791 | 40730 | | 835 |
| 17038 1 | 328 | 2553 | -1 | 288 | 86 | 221 | 37400 | 40420 | | 836 |
| 17039 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | | 837 |
| 17040 1 | 174 | 1707 | -1 | 155 | 42 | 112 | 60438 | 39800 | | 838 |
| 17041 1 | 184 | 1385 | -1 | 249 | 51 | 223 | 128776 | 38750 | | 839 |
| 17042 1 | 185 | 1093 | -1 | 299 | 76 | 278 | 134070 | 38700 | | 840 |
| 17043 1 | 161 | 935 | -1 | 202 | 44 | 333 | 121437 | 38500 | | 841 |
| 17044 1 | 171 | 929 | -1 | 187 | 72 | 373 | 103695 | 38300 | | 842 |
| 17045 1 | 319 | 1137 | -1 | 187 | 81 | 655 | 98759 | 39100 | | 843 |
| 17046 1 | 641 | 1717 | -1 | 318 | 102 | 825 | 122191 | 40318 | | 844 |
| 17047 1 | 668 | 1753 | -1 | 377 | 95 | 1069 | 118225 | 40743 | | 845 |
| 17048 1 | 562 | 1967 | -1 | 527 | 127 | 1345 | 117341 | 41212 | | 846 |
| 17049 1 | 619 | 1805 | -1 | 495 | 140 | 1266 | 87920 | 41602 | | 847 |
| 17050 1 | 461 | 2124 | -1 | 602 | 96 | 1058 | 78312 | 41944 | | 848 |
| 17051 1 | 244 | 2148 | -1 | 533 | 112 | 842 | 60478 | 42238 | | 849 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17052 | 1 | 277 | 2057 | -1 | 469 | 110 | 616 | 51693 | 42545 | 850 |
| 17053 | 1 | 158 | 1975 | -1 | 415 | 134 | 360 | 34546 | 42860 | 851 |
| 17054 | 1 | 163 | 2186 | -1 | 409 | 157 | 338 | 32846 | 43000 | 852 |
| 17055 | 1 | 153 | 2209 | -1 | 357 | 146 | 285 | 30414 | 43300 | 853 |
| 17056 | 1 | 127 | 2371 | -1 | 369 | 172 | 218 | 30605 | 43843 | 854 |
| 17057 | 1 | 173 | 3176 | -1 | 350 | 139 | 241 | 34078 | 44311 | 855 |
| 17058 | 1 | 217 | 3102 | -1 | 342 | 140 | 218 | 34973 | 44789 | 856 |
| 17059 | 1 | 149 | 2671 | -1 | 313 | 102 | 242 | 33419 | 45240 | 857 |
| 17060 | 1 | 179 | 2753 | -1 | 300 | 85 | 291 | 38030 | 45684 | 858 |
| 17061 | 1 | 182 | 1808 | -1 | 284 | 84 | 248 | 39644 | 46163 | 859 |
| 17062 | 1 | 207 | 3328 | -1 | 323 | 93 | 281 | 42081 | 46998 | 860 |
| 17063 | 1 | 238 | 3602 | -1 | 358 | 134 | 367 | 44659 | 47653 | 861 |
| 17064 | 1 | 238 | 3940 | -1 | 336 | 134 | 475 | 46507 | 48440 | 862 |
| 17065 | 1 | 264 | 4368 | -1 | 418 | 135 | 479 | 50014 | 48760 | 863 |
| 17066 | 1 | 251 | 4590 | -1 | 443 | 134 | 586 | 53685 | 49160 | 864 |
| 17067 | 1 | 231 | 4784 | -1 | 475 | 117 | 436 | 60656 | 49550 | 865 |
| 17068 | 1 | 218 | 4745 | -1 | 381 | 137 | 406 | 61776 | 49810 | 866 |
| 17069 | 1 | 231 | 3306 | -1 | 328 | 150 | 400 | 54871 | 50320 | 867 |
| 17070 | 1 | 199 | 3846 | -1 | 264 | 171 | 335 | 67370 | 50770 | 868 |
| 17071 | 1 | 181 | 4912 | -1 | 163 | 144 | 400 | 73412 | 51250 | 869 |
| 175 0 | 1 | 89 | 162 | -1 | -1 | 93079 | 446 | 94801 | 50106 | 873 |
| 175 1 | 1 | 84 | 158 | -1 | -1 | 98110 | 537 | 101588 | 50875 | 874 |
| 175 2 | 1 | 103 | 179 | -1 | -1 | 97376 | 597 | 103678 | 51644 | 875 |
| 175 3 | 1 | 86 | 188 | -1 | -1 | 96177 | 516 | 100869 | 52413 | 876 |
| 175 4 | 1 | 94 | 179 | -1 | -1 | 98985 | 566 | 98882 | 53182 | 877 |
| 175 5 | 1 | 91 | 180 | -1 | -1 | 97673 | 556 | 100183 | 53951 | 878 |
| 175 6 | 1 | 93 | 168 | -1 | -1 | 97943 | 564 | 104255 | 54720 | 879 |
| 175 7 | 1 | 82 | 190 | -1 | -1 | 94471 | 602 | 105099 | 55489 | 880 |
| 175 8 | 1 | 80 | 210 | -1 | -1 | 97235 | 708 | 115964 | 56258 | 881 |
| 175 9 | 1 | 96 | 193 | -1 | -1 | 93175 | 675 | 115418 | 57027 | 882 |
| 17510 | 1 | 93 | 210 | -1 | -1 | 92193 | 695 | 114207 | 57798 | 883 |
| 17511 | 1 | 93 | 229 | -1 | -1 | 90881 | 662 | 110748 | 58198 | 884 |
| 17512 | 1 | 94 | 229 | -1 | -1 | 96848 | 695 | 118062 | 58598 | 885 |
| 17513 | 1 | 110 | 257 | -1 | -1 | 90990 | 764 | 114707 | 58998 | 886 |
| 17514 | 1 | 82 | 230 | -1 | -1 | 70604 | 887 | 98177 | 59398 | 887 |
| 17515 | 1 | 68 | 102 | -1 | -1 | 33081 | 511 | 91912 | 59798 | 888 |
| 17516 | 1 | 74 | 91 | -1 | -1 | 27905 | 614 | 109332 | 60198 | 889 |
| 17517 | 1 | 71 | 71 | -1 | -1 | 20475 | 435 | 137604 | 60598 | 890 |
| 17518 | 1 | 87 | 91 | -1 | -1 | 23121 | 316 | 161059 | 60998 | 891 |
| 17519 | 1 | 164 | 267 | -1 | -1 | 23092 | 872 | 159755 | 61398 | 892 |
| 17520 | 1 | 209 | 393 | -1 | -1 | 37406 | 1327 | 265331 | 61794 | 893 |
| 17521 | 1 | 243 | 383 | -1 | -1 | 33159 | 1789 | 251812 | 62068 | 894 |
| 17522 | 1 | 200 | 330 | -1 | -1 | 25491 | 1517 | 251529 | 62342 | 895 |
| 17523 | 1 | 139 | 280 | -1 | -1 | 24971 | 999 | 367435 | 62616 | 896 |
| 17524 | 1 | 193 | 409 | -1 | -1 | 25189 | 1155 | 224530 | 62890 | 897 |
| 17525 | 1 | 185 | 385 | -1 | -1 | 28371 | 864 | 112596 | 63166 | 898 |
| 17526 | 1 | 170 | 404 | -1 | -1 | 32146 | 811 | 95347 | 63560 | 899 |
| 17527 | 1 | 124 | 385 | -1 | -1 | 33064 | 707 | 89902 | 63834 | 900 |
| 17528 | 1 | 90 | 317 | -1 | -1 | 32677 | 683 | 86349 | 64318 | 901 |
| 17529 | 1 | 69 | 348 | -1 | -1 | 34950 | 811 | 91109 | 64702 | 902 |
| 17530 | 1 | 80 | 345 | -1 | -1 | 35429 | 1028 | 97596 | 65084 | 903 |
| 17553 | 1 | -1 | -1 | 325 | 4977 | 26830 | 3584 | 544110 | 51227 | 906 |
| 17554 | 1 | -1 | -1 | 380 | 4340 | 26419 | 3540 | 534507 | 51707 | 907 |
| 17555 | 1 | -1 | -1 | 371 | 4574 | 36824 | 3685 | 576619 | 52363 | 908 |
| 17556 | 1 | -1 | -1 | 332 | 4824 | 27986 | 4316 | 622385 | 52995 | 909 |
| 17557 | 1 | -1 | -1 | 326 | 5186 | 28149 | 4471 | 714087 | 53649 | 910 |
| 17558 | 1 | -1 | -1 | 330 | 5426 | 27962 | 5124 | 735679 | 54283 | 911 |
| 17559 | 1 | -1 | -1 | 354 | 6030 | 29161 | 5250 | 781797 | 54882 | 912 |
| 17560 | 1 | -1 | -1 | 365 | 6436 | 28072 | 5790 | 885033 | 55423 | 913 |
| 17561 | 1 | -1 | -1 | 362 | 6630 | 28652 | 6158 | 906094 | 56227 | 914 |
| 17562 | 1 | -1 | -1 | 397 | 6451 | 29210 | 6410 | 908186 | 56947 | 915 |
| 17563 | 1 | -1 | -1 | 442 | 6572 | 30239 | 6721 | 943425 | 57607 | 916 |
| 17564 | 1 | -1 | -1 | 471 | 6159 | 29858 | 7218 | 994714 | 58290 | 917 |
| 17565 | 1 | -1 | -1 | 482 | 5923 | 30403 | 7655 | 1034957 | 59040 | 918 |
| 17566 | 1 | -1 | -1 | 534 | 6060 | 30663 | 9010 | 1140764 | 59680 | 919 |
| 17567 | 1 | -1 | -1 | 599 | 6255 | 31860 | 9784 | 1242510 | 59870 | 920 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17568 | 1 | -1 | -1 | 539 | 6319 | 32668 | 9737 | 1308067 | 60170 | 921 |
| 17569 | 1 | -1 | -1 | 662 | 6766 | 34955 | 11503 | 1360812 | 60840 | 922 |
| 17570 | 1 | -1 | -1 | 779 | 6889 | 37895 | 13230 | 1549694 | 60650 | 923 |
| 17571 | 1 | -1 | -1 | 666 | 6555 | 36133 | 15831 | 1608645 | 61290 | 924 |
| 17572 | 1 | -1 | -1 | 779 | 7001 | 39216 | 18786 | 1702493 | 61670 | 925 |
| 18055 | 1 | 280 | -1 | -1 | 564 | -1 | 1616 | 13841 | 5830 | 932 |
| 18056 | 1 | 333 | -1 | -1 | 629 | -1 | 1862 | 14857 | 6020 | 933 |
| 18057 | 1 | 261 | -1 | -1 | 601 | -1 | 2096 | 17320 | 6200 | 934 |
| 18058 | 1 | 246 | -1 | -1 | 880 | -1 | 1653 | 17888 | 6390 | •935 |
| 18059 | 1 | 215 | -1 | -1 | 835 | -1 | 1455 | 18271 | 6580 | 936 |
| 18060 | 1 | 246 | -1 | -1 | 864 | -1 | 1233 | 19591 | 6777 | 937 |
| 18061 | 1 | 195 | -1 | -1 | 546 | -1 | 594 | 20473 | 6960 | 938 |
| 18062 | 1 | 183 | -1 | -1 | 469 | -1 | 653 | 23202 | 7148 | 939 |
| 18063 | 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 940 |
| 18064 | 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 941 |
| 18065 | 1 | 161 | -1 | -1 | 469 | -1 | 539 | 28103 | 7712 | 942 |
| 18066 | 1 | 195 | -1 | -1 | 383 | -1 | 654 | 32188 | 7898 | 943 |
| 18067 | 1 | 213 | -1 | -1 | 380 | -1 | -1 | 32096 | 8084 | 944 |
| 18068 | 1 | 240 | -1 | -1 | 373 | -1 | -1 | 33920 | 8270 | 945 |
| 18069 | 1 | 288 | -1 | -1 | 446 | -1 | 738 | 35642 | 8456 | 946 |
| 18070 | 1 | 193 | -1 | -1 | 366 | -1 | 807 | 37175 | 8640 | 947 |
| 19565 | 1 | -1 | 15 | -1 | 2 | 29 | 8 | 535 | 80 | 961 |
| 19566 | 1 | -1 | 7 | -1 | 6 | 26 | 8 | 667 | 80 | 962 |
| 19567 | 1 | -1 | 8 | -1 | 2 | 31 | 18 | 687 | 90 | 963 |
| 19568 | 1 | -1 | 17 | -1 | 6 | 32 | 10 | 929 | 100 | 964 |
| 19569 | 1 | -1 | 15 | -1 | 6 | 31 | 26 | 895 | 100 | 965 |
| 19570 | 1 | -1 | 13 | -1 | 8 | 43 | 10 | 918 | 90 | 966 |
| 19571 | 1 | -1 | 21 | -1 | 14 | 57 | 15 | 887 | 90 | 967 |
| 19572 | 1 | -1 | 29 | -1 | 24 | 103 | 66 | 1147 | 90 | 968 |
| 1957301 | -1 | 28 | -1 | 22 | 85 | 79 | 1246 | 90 | 969 |
| 1957401 | -1 | 33 | -1 | 20 | 95 | 86 | 1422 | 90 | 970 |
| 19061 | 1 | 25 | 8 | -1 | 54 | 146 | 107 | 647 | 583 | 975 |
| 19062 | 1 | 31 | 15 | -1 | 66 | 154 | 169 | 1158 | 598 | 976 |
| 19063 | 1 | 46 | 15 | -1 | 86 | 174 | 264 | 1022 | 610 | 977 |
| 19064 | 1 | 166 | 8 | -1 | 84 | 218 | 267 | 878 | 628 | 978 |
| 19065 | 1 | 43 | 6 | -1 | 96 | 251 | 338 | 794 | 643 | 979 |
| 19066 | 1 | 40 | 1 | -1 | 99 | 241 | 308 | 863 | 658 | 980 |
| 19067 | 1 | 30 | 3 | -1 | 94 | 224 | 252 | 1285 | 673 | 981 |
| 19068 | 1 | 52 | 3 | -1 | 118 | 178 | 299 | 1011 | 688 | 982 |
| 19069 | 1 | 44 | 2 | -1 | 122 | 219 | 459 | 859 | 703 | 983 |
| 19070 | 1 | 47 | 3 | -1 | 148 | 259 | 434 | 966 | 720 | 984 |
| 19071 | 1 | 49 | 6 | -1 | 128 | 290 | 571 | 858 | 740 | 985 |
| 19072 | 1 | 63 | 2 | -1 | 138 | 246 | 452 | 943 | 750 | 986 |
| 20053 | 1 | -1 | -1 | 28 | 3 | 194 | 102 | 11780 | 2250 | 993 |
| 20054 | 1 | -1 | -1 | 38 | 4 | 336 | 109 | 13477 | 2360 | 994 |
| 20055 | 1 | -1 | -1 | 28 | 1 | 316 | 141 | 13261 | 2490 | 995 |
| 20056 | 1 | -1 | -1 | 39 | 3 | 414 | 127 | 14534 | 2615 | 996 |
| 20057 | 1 | -1 | -1 | 17 | 3 | 341 | 122 | 12413 | 2736 | 997 |
| 20058 | 1 | -1 | -1 | 30 | 4 | 432 | 104 | 9665 | 2854 | 998 |
| 20059 | 1 | -1 | -1 | 24 | 1 | 404 | 82 | 9241 | 2967 | 999 |
| 20060 | 1 | -1 | -1 | 30 | 2 | 539 | 89 | 8578 | 3075 | 1000 |
| 20061 | 1 | -1 | -1 | 25 | 1 | 638 | 114 | 9821 | 3178 | 1001 |
| 20062 | 1 | -1 | -1 | 20 | 4 | 675 | 130 | 8902 | 3310 | 1002 |
| 20063 | 1 | -1 | -1 | 25 | 3 | 633 | 153 | 8274 | 3420 | 1003 |
| 20064 | 1 | -1 | -1 | 42 | 2 | 941 | 230 | 8779 | 3500 | 1004 |
| 20065 | 1 | -1 | -1 | 33 | 5 | 905 | 380 | 11329 | 3600 | 1005 |
| 20066 | 1 | -1 | -1 | 40 | 12 | 1054 | 520 | 11664 | 3630 | 1006 |
| 20067 | 1 | -1 | -1 | 73 | 13 | 1068 | 1224 | 10854 | 3720 | 1007 |
| 20068 | 1 | -1 | -1 | 50 | 10 | 1060 | 1801 | 10610 | 3800 | 1008 |
| 20069 | 1 | -1 | -1 | 55 | 31 | 1266 | 2327 | 10452 | 3860 | 1009 |
| 20070 | 1 | -1 | -1 | 71 | 28 | 1337 | 3006 | 11579 | 3960 | 1010 |
| 20071 | 1 | -1 | -1 | 98 | 45 | 1598 | 5146 | 11937 | 4050 | 1011 |
| 20072 | 1 | -1 | -1 | 115 | 62 | 1726 | 7404 | 10728 | 4080 | 1012 |
| 20073 | 1 | -1 | -1 | 110 | 64 | 2237 | 8717 | 13210 | 4160 | 1013 |
| 205 0 | 1 | 231 | 347 | -1 | 91 | 3258 | 82 | 15331 | 17748 | 1017 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 205 | 3 | 1 | 353 | 551 | -1 | 253 | 6581 | 124 | 22296 | 18118 | 1020 |
| 205 | 4 | 1 | 422 | 512 | -1 | 281 | 25584 | 144 | 20225 | 18336 | 1021 |
| 205 | 5 | 1 | 439 | 463 | -1 | 212 | 28246 | 213 | 26822 | 18486 | 1022 |
| 205 | 6 | 1 | 419 | 487 | -1 | 239 | 30268 | 197 | 24424 | 18637 | 1023 |
| 205 | 7 | 1 | 429 | 520 | -1 | 288 | 27753 | 142 | 23306 | 18790 | 1024 |
| 205 | 8 | 1 | 471 | 480 | -1 | 311 | 27993 | 158 | 24505 | 18944 | 1025 |
| 205 | 9 | 1 | 511 | 521 | -1 | 355 | 24929 | 182 | 21105 | 19098 | 1026 |
| 20510 | 1 | 478 | 520 | -1 | 369 | 25934 | 214 | 19769 | 19255 | | 1027 |
| 20511 | 1 | 504 | 587 | -1 | 428 | 25177 | 197 | 20093 | 19412 | | 1028 |
| 20512 | 1 | 460 | 616 | -1 | 418 | 25671 | 161 | 14208 | 18569 | | 1029 |
| 20513 | 1 | 489 | 637 | -1 | 374 | 23293 | 189 | 21165 | 19727 | | 1030 |
| 20514 | 1 | 391 | 609 | -1 | 366 | 18115 | 143 | 18409 | 19887 | | 1031 |
| 20515 | 1 | 316 | 593 | -1 | 228 | 10894 | 137 | 22198 | 20048 | | 1032 |
| 20516 | 1 | 260 | 530 | -1 | 170 | 8893 | 123 | 20523 | 20211 | | 1033 |
| 20517 | 1 | 215 | 474 | -1 | 113 | 8250 | 107 | 23867 | 20374 | | 1034 |
| 20521 | 1 | 194 | 100 | -1 | 50 | 6171 | 118 | 16269 | 8049 | | 1038 |
| 20522 | 1 | 222 | 161 | -1 | 88 | 6347 | 140 | 22644 | 8111 | | 1039 |
| 20523 | 1 | 251 | 195 | -1 | 96 | 8121 | 107 | 27647 | 8173 | | 1040 |
| 20524 | 1 | 269 | 242 | -1 | 148 | 8882 | 127 | 26268 | 8235 | | 1041 |
| 20525 | 1 | 266 | 331 | -1 | 240 | 8447 | 103 | 18276 | 8299 | | 1042 |
| 20526 | 1 | 238 | 284 | -1 | 226 | 8374 | 99 | 12941 | 8369 | | 1043 |
| 20527 | 1 | 238 | 309 | -1 | 214 | 8136 | 80 | 13466 | 8439 | | 1044 |
| 20528 | 1 | 238 | 375 | -1 | 234 | 8697 | 73 | 12268 | 8509 | | 1045 |
| 20529 | 1 | 265 | 417 | -1 | 325 | 8805 | 70 | 11534 | 8579 | | 1046 |
| 20530 | 1 | 338 | 429 | -1 | 386 | 9864 | 70 | 11905 | 8649 | | 1047 |
| 20531 | 1 | 400 | 526 | -1 | 355 | 11423 | 93 | 12746 | 8715 | | 1048 |
| 20532 | 1 | 423 | 490 | -1 | 347 | 12749 | 131 | 16422 | 8781 | | 1049 |
| 20533 | 1 | 335 | 484 | -1 | 351 | 13573 | 111 | 18735 | 8847 | | 1050 |
| 20534 | 1 | 330 | 397 | -1 | 314 | 12130 | 104 | 17506 | 8913 | | 1051 |
| 20535 | 1 | 301 | 377 | -1 | 260 | 11797 | 108 | 19240 | 8980 | | 1052 |
| 20536 | 1 | 354 | 449 | -1 | 312 | 12074 | 129 | 20859 | 9040 | | 1053 |
| 20537 | 1 | 372 | 476 | -1 | 306 | 11684 | 95 | 19143 | 9100 | | 1054 |
| 20538 | 1 | 413 | 467 | -1 | 287 | 11647 | 141 | 17929 | 9160 | | 1055 |
| 20551 | 1 | 347 | 308 | -1 | -1 | -1 | 107 | 18856 | 9419 | | 1058 |
| 20552 | 1 | 268 | 222 | -1 | -1 | -1 | 118 | 27281 | 9498 | | 1059 |
| 20553 | 1 | 253 | 166 | -1 | -1 | -1 | 178 | 26791 | 9585 | | 1060 |
| 20554 | 1 | 269 | 86 | -1 | -1 | 7105 | 156 | 23647 | 9691 | | 1061 |
| 20555 | 1 | 515 | 90 | -1 | -1 | 8243 | 188 | 34622 | 9808 | | 1062 |
| 20556 | 1 | 336 | 74 | -1 | -1 | 7160 | 107 | 17774 | 9911 | | 1063 |
| 20557 | 1 | 447 | 62 | -1 | -1 | 7856 | 104 | 9617 | 9840 | | 1064 |
| 20558 | 1 | 458 | 96 | -1 | 290 | 8456 | 109 | 10770 | 9862 | | 1065 |
| 20559 | 1 | 409 | 118 | -1 | 413 | 12749 | 136 | 11009 | 9937 | | 1066 |
| 20560 | 1 | 340 | 82 | -1 | 382 | 8785 | 159 | 8867 | 9984 | | 1067 |
| 20561 | 1 | 301 | 94 | -1 | 371 | 8940 | 113 | 10474 | 10028 | | 1068 |
| 20562 | 1 | 393 | 56 | -1 | 475 | 9049 | 130 | 11133 | 10061 | | 1069 |
| 20563 | 1 | 386 | 46 | -1 | 370 | 6426 | 165 | 7788 | 10088 | | 1070 |
| 20564 | 1 | 480 | 49 | -1 | 468 | 7560 | 173 | 10163 | 10100 | | 1071 |
| 20565 | 1 | 485 | 59 | -1 | 469 | 7778 | 189 | 12534 | 10130 | | 1072 |
| 20566 | 1 | 466 | 62 | -1 | 439 | 7735 | 199 | 13953 | 10170 | | 1073 |
| 20567 | 1 | 424 | 63 | -1 | 528 | 8715 | 279 | 13671 | 10210 | | 1074 |
| 20568 | 1 | 372 | 32 | -1 | 429 | 7988 | 294 | 10934 | 10250 | | 1075 |
| 20569 | 1 | 406 | 46 | -1 | 521 | 7144 | 261 | 8095 | 10290 | | 1076 |
| 20570 | 1 | 430 | 27 | -1 | 680 | 6343 | 376 | 5775 | 10320 | | 1077 |
| 20571 | 1 | 370 | 52 | -1 | 604 | 6917 | 495 | 8592 | 10350 | | 1078 |
| 20572 | 1 | 422 | 41 | -1 | 560 | 6739 | 482 | 9515 | 10380 | | 1079 |
| 22553 | 1 | 9802 | -1 | -1 | -1 | -1 | 13986 | 256567372000 | | | 1089 |
| 22554 | 1 | 9765 | -1 | -1 | -1 | -1 | 12995 | 223866377000 | | | 1090 |
| 22555 | 1 | 9700 | -1 | -1 | -1 | -1 | 11489 | 212028386821 | | | 1091 |
| 22556 | 1 | 10025 | -1 | -1 | -1 | -1 | 13015 | 236214394217 | | | 1092 |
| 22557 | 1 | 10419 | -1 | -1 | -1 | -1 | 12968 | 233239402225 | | | 1093 |
| 22558 | 1 | 10661 | -1 | -1 | -1 | -1 | 11778 | 236103410686 | | | 1094 |
| 22559 | 1 | 10712 | -1 | -1 | -1 | -1 | 10141 | 233052419613 | | | 1095 |
| 22560 | 1 | 10910 | -1 | -1 | -1 | -1 | 10244 | 228842429027 | | | 1096 |
| 22561 | 1 | 11188 | -1 | -1 | -1 | -1 | 10641 | 232868439000 | | | 1097 |
| 22562 | 1 | 11586 | -1 | -1 | -1 | -1 | 12441 | 252453449641 | | | 1098 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 22563 | 1 | 10754 | -1 | -1 | -1 | -1 | 12691 | 242487460490 | | 1099 |
| 22564 | 1 | 11748 | -1 | -1 | -1 | -1 | 13623 | 273676471627 | | 1100 |
| 22565 | 1 | 12310 | -1 | -1 | -1 | -1 | 13022 | 273702483410 | | 1101 |
| 22566 | 1 | 12631 | -1 | -1 | -1 | -1 | 13402 | 298701494110 | | 1102 |
| 22567 | 1 | 13398 | -1 | -1 | -1 | -1 | 16562 | 339861505060 | | 1103 |
| 22568 | 1 | 13841 | -1 | -1 | -1 | -1 | 16551 | 315513616350 | | 1104 |
| 22569 | 1 | 14732 | -1 | -1 | -1 | -1 | 15971 | 300140527950 | | 1105 |
| 22570 | 1 | 15708 | -1 | -1 | -1 | -1 | 26795 | 337211539860 | | 1106 |
| 22571 | 1 | 16180 | -1 | -1 | -1 | -1 | 29595 | 335204551830 | | 1107 |
| 23052 | 1 | 4015 | -1 | -1 | -1 | -1 | 48460 | 187034 | 78700 | 1122 |
| 23053 | 1 | 9823 | -1 | -1 | -1 | -1 | 14893 | 160465 | 79900 | 1123 |
| 23054 | 1 | 3464 | -1 | -1 | -1 | -1 | 12569 | 163357 | 81100 | 1124 |
| 23055 | 1 | 2979 | -1 | -1 | -1 | -1 | 13108 | 193537 | 83858 | 1125 |
| 23056 | 1 | 3216 | -1 | -1 | -1 | -1 | 16357 | 199556 | 85654 | 1126 |
| 23057 | 1 | 3056 | -1 | -1 | -1 | -1 | 15595 | 190780 | 87514 | 1127 |
| 23058 | 1 | 2615 | -1 | -1 | -1 | -1 | 16006 | 235934 | 89441 | 1128 |
| 23059 | 1 | 2720 | -1 | -1 | -1 | -1 | 13818 | 235617 | 91438 | 1129 |
| 23060 | 1 | 2310 | -1 | -1 | -1 | -1 | 11618 | 226372 | 93506 | 1130 |
| 23061 | 1 | 2117 | -1 | -1 | -1 | -1 | 9033 | 197882 | 95655 | 1131 |
| 23062 | 1 | 1301 | -1 | -1 | -1 | -1 | 6198 | 246192 | 97765 | 1132 |
| 23063 | 1 | 1270 | -1 | -1 | -1 | -1 | 4831 | 213760100045 | | 1133 |
| 23064 | 1 | 1225 | -1 | -1 | -1 | -1 | 5412 | 237031102070 | | 1134 |
| 23065 | 1 | 3497 | -1 | -1 | -1 | -1 | 6229 | 192387104340 | | 1135 |
| 23066 | 1 | 1634 | -1 | -1 | -1 | -1 | 4434 | 144886106610 | | 1136 |
| 235 0 | 1 | 38 | 54 | -1 | 88 | 20199 | 61 | 782 | 4466 | 1155 |
| 235 1 | 1 | 25 | 37 | -1 | 97 | 20199 | 94 | 807 | 4459 | 1156 |
| 235 2 | 1 | 39 | 36 | -1 | 78 | 20199 | 108 | 678 | 4452 | 1157 |
| 235 3 | 1 | 26 | 47 | -1 | 77 | 16260 | 90 | 616 | 4446 | 1158 |
| 235 4 | 1 | 29 | 43 | -1 | 87 | 16260 | 81 | 644 | 4439 | 1159 |
| 235 5 | 1 | 36 | 45 | -1 | 81 | 16260 | 88 | 588 | 4432 | 1160 |
| 235 6 | 1 | 19 | 44 | -1 | 60 | 16260 | 68 | 550 | 4426 | 1161 |
| 235 7 | 1 | 23 | 41 | -1 | 62 | 16260 | 82 | 539 | 4419 | 1162 |
| 235 8 | 1 | 28 | 29 | -1 | 59 | 13704 | 102 | 534 | 4413 | 1163 |
| 235 9 | 1 | 29 | 40 | -1 | 60 | 13704 | 36 | 383 | 4406 | 1164 |
| 23510 | 1 | 33 | 66 | -1 | 76 | 13704 | 23 | 408 | 4399 | 1165 |
| 23511 | 1 | 28 | 35 | -1 | 75 | 13704 | 48 | 445 | 4391 | 1166 |
| 23512 | 1 | 25 | 55 | -1 | 65 | 13151 | 43 | 387 | 4387 | 1167 |
| 23523 | 1 | 83 | -1 | -1 | -1 | -1 | -1 | -1 | 3031 | 1170 |
| 23524 | 1 | 48 | -1 | -1 | -1 | -1 | -1 | -1 | 3007 | 1171 |
| 23525 | 1 | 33 | 63 | -1 | 102 | 813 | 108 | 3426 | 2985 | 1172 |
| 23526 | 1 | 50 | 68 | -1 | 134 | 890 | 207 | 4361 | 2973 | 1173 |
| 23527 | 1 | 28 | 60 | -1 | 130 | 88 | 88 | 3943 | 2961 | 1174 |
| 23528 | 1 | 22 | 23 | -1 | 152 | 88 | 59 | 3292 | 2949 | 1175 |
| 23529 | 1 | 21 | 32 | -1 | 16 | 1118 | 40 | 3462 | 2937 | 1176 |
| 23530 | 1 | 16 | 38 | -1 | 13 | 967 | 33 | 3521 | 2927 | 1177 |
| 23531 | 1 | 17 | 35 | -1 | 23 | 963 | 38 | 3527 | 2935 | 1178 |
| 23532 | 1 | 13 | 42 | -1 | 8 | 897 | 55 | 3631 | 2945 | 1179 |
| 23533 | 1 | 19 | 30 | -1 | 138 | 993 | 56 | 3933 | 2954 | 1180 |
| 23534 | 1 | 7 | 45 | -1 | 154 | 1353 | 86 | 3793 | 2963 | 1181 |
| 2353501 | 17 | 51 | -1 | 14 | 1314 | 34 | 3423 | 2971 | | 1182 |
| 2353601 | 16 | 50 | -1 | 18 | 1257 | 32 | 3712 | 2968 | | 1183 |
| 23537 | 1 | 12 | 56 | -1 | 15 | 806 | 15 | 3840 | 2965 | 1184 |
| 23538 | 1 | 14 | 8 | -1 | 13 | 1064 | 27 | 4360 | 2962 | 1185 |
| 23539 | 1 | 10 | 12 | -1 | 4 | 937 | 32 | 5707 | 2959 | 1186 |
| 23540 | 1 | 12 | 12 | -1 | 6 | 904 | 41 | 6293 | 2958 | 1187 |
| 23541 | 1 | 9 | 15 | -1 | 9 | 971 | 56 | 9760 | 2961 | 1188 |
| 23542 | 1 | 8 | 11 | -1 | 14 | 1238 | 42 | 12790 | 2963 | 1189 |
| 23543 | 1 | 13 | 19 | -1 | 10 | 1314 | 75 | 12630 | 2946 | 1190 |
| 23544 | 1 | 8 | 13 | -1 | 11 | 1245 | 33 | 11532 | 2944 | 1191 |
| 23545 | 1 | 6 | 14 | -1 | 16 | 1612 | 32 | 12116 | 2952 | 1192 |
| 23546 | 1 | 8 | 7 | -1 | 12 | 1514 | 31 | 10900 | 2957 | 1193 |
| 23547 | 1 | 3 | 14 | -1 | 12 | 1138 | 24 | 10886 | 2974 | 1194 |
| 23548 | 1 | 17 | 5 | -1 | 18 | 1330 | 33 | 10221 | 2985 | 1195 |
| 23549 | 1 | 6 | 9 | -1 | 16 | 1369 | 28 | 8388 | 2981 | 1196 |
| 23550 | 1 | 9 | 5 | -1 | 14 | 1258 | 32 | 8414 | 2969 | 1197 |
| 23551 | 1 | 5 | 3 | -1 | 9 | 1395 | 04 | 9797 | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 23553 | 1 | 12 | 7 | -i | 9 | 1497 | 36 | 11229 | 2945 | 1200 |
| 23554 | 1 | 4 | 1 | -1 | 12 | 1466 | 24 | 8243 | 2933 | 1201 |
| 23555 | 1 | 5 | 3 | -1 | 12 | 1388 | 41 | 8141 | 2909 | 1202 |
| 23556 | 1 | 4 | 3 | -1 | 6 | 1663 | 27 | 8900 | 2898 | 1203 |
| 23557 | 1 | 12 | 2 | -1 | 9 | 1402 | 33 | 9842 | 2888 | 1204 |
| 23558 | 1 | 10 | 2 | -1 | 10 | 1500 | 61 | 11766 | 2853 | 1205 |
| 23559 | 1 | 9 | 2 | -1 | 5 | 1545 | 59 | 12655 | 2846 | 1206 |
| 23560 | 1 | 4 | 2 | -1 | 12 | 1592 | 59 | 10709 | 2834 | 1207 |
| 23561 | 1 | 11 | 2 | -1 | 7 | 1779 | 42 | 9861 | 2818 | 1208 |
| 23562 | 1 | 6 | 6 | -1 | 12 | 1824 | 39 | 9817 | 2824 | 1209 |
| 23563 | 1 | 4 | 1 | -1 | 13 | 2236 | 42 | 10002 | 2841 | 1210 |
| 23564 | 1 | 9 | 5 | -1 | 19 | 2363 | 62 | 11150 | 2849 | 1211 |
| 23565 | 1 | 7 | 5 | -1 | 22 | 2692 | 77 | 10140 | 2880 | 1212 |
| 23566 | 1 | 8 | 7 | -1 | 13 | 2876 | 73 | 11791 | 2880 | 1213 |
| 23567 | 1 | 9 | 4 | -1 | 15 | 3047 | 86 | 12481 | 2900 | 1214 |
| 23568 | 1 | 12 | 3 | -1 | 16 | 3364 | 101 | 13893 | 2810 | 1215 |
| 23569 | 1 | 8 | 5 | -1 | 10 | 3680 | 147 | 15477 | 2930 | 1216 |
| 23570 | 1 | 12 | 7 | -1 | 15 | 3645 | 215 | 18570 | 2950 | 1217 |
| 23571 | 1 | 10 | 4 | -1 | 24 | 4365 | 314 | 23242 | 2970 | 1218 |
| 23572 | 1 | 22 | 6 | -1 | 26 | 4840 | 618 | 24280 | 3010 | 1219 |
| 23573 | 1 | 23 | 6 | -1 | 42 | 6356 | 619 | 22206 | 3033 | 1220 |
| 24049 | 1 | 47 | -1 | -1 | -1 | 1334 | 196 | 7257 | 1066 | 1229 |
| 24050 | 1 | 50 | -1 | -1 | -1 | 1982 | 201 | 9142 | 1258 | 1230 |
| 24051 | 1 | 61 | -1 | -1 | -1 | 2618 | 165 | 12774 | 1516 | 1231 |
| 24052 | 1 | 61 | -1 | -1 | -1 | 3035 | 157 | 16840 | 1607 | 1232 |
| 24053 | 1 | 66 | -1 | -1 | -1 | 2584 | 125 | 14571 | 1650 | 1233 |
| 24054 | 1 | 55 | -1 | -1 | -1 | 3061 | 85 | 15201 | 1666 | 1234 |

```
*****************************************************************************
** VM/SP SERVICE LEVEL 0310 **** CPU SERIAL  014561  CPU MODEL  4341 *********************
** PRINT STARTED  09/03/86 16:20:50 *******************************************
```

| RSCS | RSCS | USERID | ORIGIN |
|------|------|--------|--------|
| ARCHER | UCSCVM | DISTCODE | SYSTEM |
| | | FILENAME | FILETYPE |
| 09/03/86 | 16:06:41 | FILE CREATION DATE |
| 5797 | 00001100 | SPOOLID  COUNT |
| 09/03/86 | 16:20:50 | FILE PRINT DATE |
| 0 | 04A | CLASS  DEVICE |
| STANDARD | | FORMS |

TAG DATA: FILE (2379) ORIGIN UCSCC    daemon    9/03/86 16:11:12 P.D.T.

DANE ARCHER
STEVENSON COLLEGE
UNIVERSITY OF CALIFORNIA
SANTA CRUZ, CALIF. 95064

"skip" (sample)
formatted data and
the Fortran program
used to format the
data in the raw
("Eight") file.

From VS1@UCSCVM.BITNET Tue Sep  2 15:32:04 1986
Received: by ucscc (5.9/4.7)
        id AA11442; Tue, 2 Sep 86 15:28:41 PDT
From: VS1@UCSCVM.BITNET
Message-Id: <8609022228.AA11442@ucscc>
To: archer@UCSCVM.BITNET
Date: Tue Sep  2 15:14:13 1986
Subject: TPEPRINT
Status: R

```
//TPEPRINT JOB 21048,ARCHER,CLASS=D,MSGCLASS=Q
LOG >>>> TPEPRINT - 21048,ARCHER              -D-    - 15:12   ARCHER
LOG IEF233A M 4CO,SC5820,,TPEPRINT,GENER,NEW.SKIP
LOG Job TPEPRINT.GENER(IEBGENER) #001 Complete 0000
LOG IEF280E K 4CO,SC5820,TPEPRINT,GENER
***@B UCSCVM  VS1     21048   A 00000000 UCSCC    ARCHER
//STEP1 EXEC GENER,SYSOUT=Q
XXGENER      PROC SYSOUT='A'                              .    00000010
XXGENER      EXEC PGM=IEBGENER,REGION=50K                      00000020
XXSYSPRINT  DD SYSOUT=&SYSOUT                              .    00000030
IEF653I SUBSTITUTION JCL - SYSOUT=Q
//SYSIN DD DUMMY
X/SYSIN      DD DUMMY                                          00000040
//SYSUT1 DD DSN=NEW.SKIP,
//   UNIT=TAPE,
//   VOL=(,RETAIN,SER=SC5820),
//   DISP=OLD,
//   LABEL=(4,SL)
//SYSUT2 DD SYSOUT=Q
//
IEF236I ALLOC. FOR TPEPRINT GENER    STEP1
IEF237I 4CO  ALLOCATED TO SYSUT1
IEF142I - STEP WAS EXECUTED - COND CODE 0000
IEF285I   NEW.SKIP                                      KEPT
IEF285I   VOL SER NOS= SC5820.
IEF373I STEP /GENER   / START 86245.1512
IEF374I STEP /GENER   / STOP  86245.1514 CPU   0MIN 03.93SEC STOR VIRT 162K

        ------- Device type   Address  I/O count               Sysout DD name   Lines Class Copies
                Dummy           000         0                   SYSPRINT           4     Q
                Tape            4CO        106                  SYSUT2          6,279    Q

        ------ Total sysin count      0.    Partition size    640K;   Memory used    162K.
IEF280E K 4CO,SC5820,TPEPRINT,GENER
IEF298I  TPEPRINT SYSOUT=Q.
IEF379I  JOB /TPEPRINT/ START 86245.1512
IEF376I  JOB /TPEPRINT/ STOP  86245.1514 CPU   0MIN 03.93SEC

        Job started Sep 02,1986 Tue 15:12:48                    CPU id-014561

        Estimated job cost (does not include tape mounts or JCL printing):
                CPU time              $.49  00:00:03.93 at $450  per hour
                I/O requests          $.12         106 at $1.20 per 1000
                Lines printed        $7.22       6,283 at $1.15 per 1000
                                    ----------
                Total                $7.83   ($.35 minimum).
```

IEB352I WARNING : OUTPUT RECFM/LRECL/BLKSIZE COPIED FROM INPUT
PROCESSING ENDED AT EOD

```
$JOB            LIEBERMAN,KP=29,RUN=FREE,TIME=18,PAGES=250
C*******************************************************************************
C  THIS PROGRAM IS FOR OUTPUT OF CRIME RATES AND RAW CRIME FIGURES, SKIPPING A
C     LINE AT THE END OF EACH DECADE.  THE FOLLOWING IS A KEY TO SOME OF THE
C     VARIABLES IN THE PROGRAM:
C
C  "IBLANK" IS A MATRIX THAT CONTAINS PRINT FORMATTING INFORMATION FOR BLANK
C       SPACES WHEN CRIME DATA IS NON-EXISTENT.
C  "IFORMT" IS A MATRIX THAT CONTAINS PRINT FORMATTING INFORMATION FOR
C       EXISTING CRIME DATA.
C  "IFRMT" IS A MATRIX THAT CONTAINS PRINT FORMATTING INFORMATION FOR EACH DATA
C       YEAR.  IT CONSISTS OF PIECES FROM "IFORMT" AND "IBLANK" AND CHANGES FOR
C       EACH YEAR PRINTED.
C  "JCHECK" IS A VARIABLE THAT INDICATES WHETHER THE DATA IS BEING PRINTED ON
C       THE FIRST OR SECOND PAGE FOR EACH COUNTRY.
C  "JCNTRY" IS THE COUNTRY CODE NUMBER.
C  "JCOUNT" IS A VARIABLE THAT COUNTS THE NUMBER OF LINES PRINTED ON EACH PAGE.
C  "JCRIME(I)" IS A SEVEN-DIMENSIONED VARIABLE FOR EACH RAW CRIME FIGURE.
C  "JKL" IS A BLANK VARIABLE FED INTO EACH "JCRIME(I)" FOR WHICH NO DATA IS
C       AVAILABLE.
C  "JPOP" IS EACH YEAR'S POPULATION.
C  "JYEAR" IS EACH YEAR.
C  "K" IS THE NUMBER OF FOOTNOTES FOR EACH COUNTRY.
C  "L" INDICATES THE TYPE OF CRIME STATISTICS.
C  "LASTY" IS THE LAST YEAR OF DATA FOR EACH COUNTRY.
C  "N(I)" IS A SEVEN-DIMENSIONED VARIABLE THAT CONTAINS THE FOOTNOTE NUMBERS
C       FOR EACH CRIME AS THEY APPEAR ON THE PRINTOUT.
C  "NCON(I,J) IS A MATRIX CONTAINING THE TABLE OF CONTENTS.
C  "RCRIME(I)" IS A SEVEN-DIMENSIONED VARIABLE FOR EACH CRIME RATE.
C  "RKL" IS A BLANK VARIABLE FED INTO EACH "RCRIME(I) FOR WHICH NO DATA IS
C       AVAILABLE.
C*******************************************************************************
     1            DIMENSION IFORMT (4,16),IFRMT(4,16),IBLANK(4,16)
     2            DIMENSION N(7),JCRIME(7),RCRIME(7)
     3            DIMENSION NCON(168,8)
     4            DATA JKL/'   '/
     5            DATA RKL/'   '/
     6            READ (5,600) IFRMT
     7    600     FORMAT (4A4)
     8            READ(5,610) IBLANK
     9    610     FORMAT (4A4)
    10            DO 620 I=1,4
    11            IFORMT (I,1)=IFRMT (I,1)
    12            IFORMT (I,16)=IFRMT(I,16)
    13    620     CONTINUE
    14            WRITE (6,700)
    15    700     FORMAT (1H1)
    16            DO 300 I=1,12
    17            WRITE (6,299)
    18    299     FORMAT (2H0 )
    19    300     CONTINUE
    20            WRITE (6,305)
    21    305     FORMAT (52X,27HCOMPARATIVE CRIME DATA FILE)
    22            WRITE (6,310)
    23    310     FORMAT (1H0,60X,9HJUNE 1976)
    24            DO 320 I=1,5
    25            WRITE (6,315)
    26    315     FORMAT (2H0 )
    27    320     CONTINUE
    28            WRITE (6,325)
    29    325     FORMAT(50X,32HDANE ARCHER AND ROSEMARY GARTNER)
```

4

```
30            WRITE (6,330)
31      330   FORMAT (1HO,54X,23HDEPARTMENT OF SOCIOLOGY)
32            WRITE (6,335)
33      335   FORMAT(1HO,54X,24HUNIVERSITY OF CALIFORNIA)
34            WRITE (6,340)
35      340   FORMAT (1HO,56X,22HSANTA CRUZ, CALIFORNIA)
36            WRITE(6,345)
37      345   FORMAT (1HO,64X,5H95064)
38            READ (5,2) LCNTRY
39      2     FORMAT (I3)
        C     ********************************************************************
        C     THIS PART OF THE PROGRAM (BETWEEN ASTERISKS) IS FOR TABLE OF CONTENTS
40            DO 1090 I = 1,168
41            READ (5,1089) (NCON(I,J),J=1,8)
42      1089  FORMAT (8A4)
43      1090  CONTINUE
44            WRITE (6,1012)
45      1012  FORMAT (1H1)
46            WRITE (6,9099)
47      9099  FORMAT (1H1)
48            WRITE (6,1025)
49      1025  FORMAT (1H ,50X,'TABLE OF CONTENTS')
50            WRITE (6,1015)
51      1015  FORMAT (1HO,'COUNTRIES',70X,'CITIES')
52            WRITE (6,999)
53      999   FORMAT (1H+,'_____',79X,'_____')
54            WRITE (6,1016)
55      1016  FORMAT (1H )
56            DO 1014 KCON = 1,56
57            WRITE (6,1013) (NCON(KCON,J),J=1,8),(NCON(KCON+56,J),J=1,8),
       1            (NCON(KCON+112,J),J=1,8)
58      1013  FORMAT (1H ,8A4,12X,8A4,12X,8A4)
59      1014  CONTINUE
        C     ********************************************************************
60      3     WRITE (6,12345)
61      12345 FORMAT (1H1)
62            WRITE(6,4)
63      4     FORMAT (1HO,130(1H-))
64            JCHECK = 5
65            READ (9,5)
66      5     FORMAT (1HO,40H                                    COUNTRY)
67      6     WRITE (6,5)
68            IF (JCHECK-1) 8,10,8
69      8     READ (9,9) L,(N(I), I=1,7),LASTY,K
70      9     FORMAT (I1,7A1,2I2)
71            LASTY=LASTY+1900
72      10    IF (L) 1000,50,11
73      11    IF (L-1) 1000,20,12
74      12    IF (L-2) 1000,30,15
75      15    IF (L-3) 1000,40,1000
76      20    WRITE(6,25)
77      25    FORMAT (1H+,40X,43HNUMBER OF CONVICTIONS -- (RATE PER 100,000))
78            GOTO 60
79      30    WRITE (6,35)
80      35    FORMAT(1H+,37X,
       1 49HNUMBER OF OFFENSES REPORTED -- (RATE PER 100,000))
81            GOTO 60
82      40    WRITE (6,45)
83      45    FORMAT(1H+,37X,
       1 49HNUMBER OF OFFENSES REPORTED -- (RATE PER 100,000))
84            GOTO 60
```

```
85   50      WRITE (6,55)
86   55      FORMAT (1H+,41X,38HCRIME STATISTICS -- (RATE PER 100,000))
87   60      IF (JCHECK-1) 88,65,88
88   65      WRITE (6,70)
89   70      FORMAT (1H+,95X,9HCONTINUED)
90   88      WRITE (6,90)    (N(I),I = 1,7)
91   90      FORMAT (26HO    YEAR        MURDER (,A1,13H)  MANSLTR (,
     1  A1,13H)  HOMICIDE (,A1,14H)       RAPE (,A1,16H)       ASSAULT (,
     2  A1,16H)      ROBBERY (,A1,17H)         THEFT (,A1,
     3  9H)      POP)
92          JCOUNT = 0
93          WRITE (6,95)
94   95      FORMAT (1H )
95          IF (JCHECK-1) 98,132,98
96   98      READ (9,100) JCNTRY,JYEAR,(JCRIME(I),I=1,7),POP
97   100     FORMAT (I3,I2,2X,4I6,2I7,I8,F6.0)
98   12839   IF (JCHECK-6) 105,102,1000
99   102     JYEAR1=JYEAR+1900
100         JCHECK=0
101  105     JCOUNT=JCOUNT+1
102         JX=JYEAR/10
103         IF (JYEAR-(10*JX).NE.0)  GO TO 107
104         WRITE (6,201)
105  201     FORMAT(1H )
106         JCOUNT=JCOUNT+1
107  107     IF (JCOUNT-51) 132,131,131
108  131     JCHECK =1
109         WRITE (6,12355)
110  12355   FORMAT (1H1)
111         WRITE (6,12365)
112  12365   FORMAT (1HO)
113         GOTO 6
114  132     IF (JYEAR) 133,135,135
115  133     WRITE (6,134)
116  134     FORMAT (8H     GAP)
117         GOTO 98
118  135     JYEAR= JYEAR +1900
119  202     IF(POP+1.) 1010,138,140
120  138     WRITE (6,139) JYEAR
121  139     FORMAT (1H ,4X,I4)
122         GOTO 98
123  140     DO 200 I=1,7
124         ICOL=2*I
125         IF (JCRIME(I)+1) 1010,160,150
126  150     RCRIME(I)=FLOAT(JCRIME(I))/(POP/100.)
127         DO 155 J=1,4
128         IFORMT(J,ICOL)=IFRMT(J,ICOL)
129         IFORMT(J,ICOL+1)=IFRMT(J,ICOL+1)
130  155     CONTINUE
131         GOTO 200
132  160     DO 170 J=1,4
133         IFORMT(J,ICOL)=IBLANK(J,ICOL)
134         IFORMT(J,ICOL+1)= IBLANK (J,ICOL+1)
135  170     CONTINUE
136         JCRIME (I)=JKL
137         RCRIME(I)=RKL
138  200     CONTINUE
139         JPOP=IFIX(POP)
140         WRITE(6,IFORMT) JYEAR,(JCRIME(I),RCRIME(I),I=1,7),JPOP
141  218     IF (LASTY-JYEAR) 1000,220,98
142  220     IF (K)  1000,270,223
```

```
143    223      JCOUNT = JCOUNT +2
144             IF (JCOUNT-51) 230,3001,3001
145    3001     WRITE (6,3002)
146    3002     FORMAT (1H1)
147             WRITE (6,3003)
148    3003     FORMAT (1HO)
149             JCOUNT = 0
150    230      WRITE (6,240)
151    240      FORMAT (11HOFOOTNOTES:)
152             DO 260 I=1,K
153             READ (9,250)
154    250      FORMAT(10X,65H
          1                 NOTE)
155             JCOUNT = JCOUNT + 1
156             IF (JCOUNT-51) 260,2001,2001
157    2001     WRITE (6,2002)
158    2002     FORMAT (1H1)
159             WRITE (6,2003)
160    2003     FORMAT (1HO)
161             WRITE (6,2004)
162    2004     FORMAT (1H )
163             JCOUNT = 0
164    260      WRITE   (6,260)
165    270      IF (JCNTRY-LCNTRY)  3,1000,1000
166    1000     WRITE (6,1005)
167    1005     FORMAT  (1H1)
168    1010         STOP
169             END

       $ENTRY
```

COMPARATIVE CRIME DATA FILE

JUNE 1976

DANE ARCHER AND ROSEMARY GARTNER

DEPARTMENT OF SOCIOLOGY

UNIVERSITY OF CALIFORNIA

SANTA CRUZ, CALIFORNIA

95064

# ADEN: *

NUMBER OF OFFENSES REPORTED -- (RATE PER 100,000)

| YEAR | MURDER ( ) | MANSLTR ( ) | HOMICIDE ( ) | RAPE (1) | ASSAULT ( ) | ROBBERY ( ) | THEFT ( ) | POP |
|------|-----------|-------------|--------------|----------|-------------|-------------|-----------|-----|
| 1960 | 8 ( 3.88) | | | | | | | |
| 1961 | 13 ( 6.19) | | | 67 ( 32.52) | | 925 ( 449.03) | | |
| 1962 | | | | 77 ( 36.67) | | 275 ( 130.95) | | 206 |
| 1963 | 18 ( 8.00) | | | | | | 782 ( 372.38) | 210 |
| 1964 | 46 ( 20.00) | | | 117 ( 52.00) | | 295 ( 131.11) | 616 ( 273.78) | 225 |
| 1965 | 153 ( 64.56) | | | 90 ( 39.13) | | 344 ( 149.57) | 975 ( 423.91) | 230 |
| 1966 | 354 (141.60) | | | 78 ( 32.91) | | 411 ( 173.42) | 797 ( 336.29) | 237 |
| | | | | 67 ( 26.80) | | 376 ( 150.40) | 730 ( 292.00) | 250 |

FOOTNOTES:

* BRITISH COLONY IN SOUTH YEMEN UNTIL 1967; RAW CRIME DATA
  FROM INTERPOL. RATES COMPUTED FROM POPULATION FIGURES ABOVE
1. SEX OFFENCES

XS001

| YEAR | MURDER ( ) | MANSLTR ( ) | HOMICIDE ( ) | RAPE (1) | ASSAULT ( ) | ROBBERY ( ) | THEFT ( ) | POP |
|------|-----------|-------------|--------------|----------|-------------|-------------|-----------|-----|
| 1965 | 828 ( 3.85) | | | 1087 ( 5.06) | | 35622 ( 165.76) | 75785 ( 352.65) | 21490 |
| 1966 | 675 ( 3.09) | | | 1208 ( 5.54) | | 30013 ( 137.55) | 68103 ( 312.11) | 21820 |

FOOTNOTES:
* RAW CRIME DATA FROM INTERPOL; RATES COMPUTED FROM
  POPULATION FIGURES ABOVE
1. SEX OFFENSES

| AUSTRALIA * | | | NUMBER OF CONVICTIONS -- (RATE PER 100,000) | | | | | |
|---|---|---|---|---|---|---|---|---|
| YEAR | MURDER ( ) | MANSLTR ( ) | HOMICIDE (1) | RAPE (2) | ASSAULT (3) | ROBBERY (4) | THEFT (5) | POP |
| 1903 | | | 51 ( 1.32) | 90 ( 2.34) | 244 ( 6.34) | | | 3850 |
| 1904 | | | 58 ( 1.48) | 97 ( 2.47) | 225 ( 5.73) | | | 3926 |
| 1905 | | | 46 ( 1.15) | 96 ( 2.40) | 256 ( 6.40) | | | 4002 |
| 1906 | | | 56 ( 1.37) | 70 ( 1.72) | 239 ( 5.86) | | | 4078 |
| 1907 | | | 45 ( 1.08) | 90 ( 2.17) | 255 ( 6.14) | | | 4154 |
| 1908 | | | 46 ( 1.09) | 60 ( 1.42) | 278 ( 6.57) | | | 4230 |
| 1909 | | | 45 ( 1.05) | 59 ( 1.37) | 260 ( 6.04) | | | 4306 |
| 1910 | | | 46 ( 1.05) | 77 ( 1.76) | 250 ( 5.71) | | | 4382 |
| 1911 | | | 33 ( 0.74) | 97 ( 2.18) | 235 ( 5.27) | | | 4455 |
| 1912 | | | 49 ( 1.08) | 88 ( 1.93) | 221 ( 4.85) | | | 4556 |
| 1913 | | | 52 ( 1.12) | 71 ( 1.52) | 298 ( 6.40) | | | 4657 |
| 1914 | | | 57 ( 1.20) | 67 ( 1.41) | 300 ( 6.31) | | | 4758 |
| 1915 | | | 40 ( 0.82) | 14 ( 0.29) | 226 ( 4.65) | | | 4859 |
| 1916 | | | 35 ( 0.71) | 15 ( 0.30) | 193 ( 3.89) | | | 4960 |
| 1917 | | | 30 ( 0.59) | 15 ( 0.30) | 239 ( 4.72) | | | 5061 |
| 1918 | | | 21 ( 0.41) | 11 ( 0.21) | 155 ( 3.00) | | | 5162 |
| 1919 | | | 48 ( 0.91) | 3 ( 0.06) | 220 ( 4.18) | | | 5263 |
| 1920 | | | 38 ( 0.71) | 7 ( 0.13) | 223 ( 4.16) | | | 5360 |
| 1921 | | | 46 ( 0.84) | 8 ( 0.15) | 235 ( 4.29) | | | 5476 |
| 1922 | | | 46 ( 0.82) | 5 ( 0.09) | 240 ( 4.29) | | | 5592 |
| 1923 | | | 30 ( 0.53) | 9 ( 0.16) | 246 ( 4.31) | | | 5708 |
| 1924 | | | 34 ( 0.58) | 5 ( 0.09) | 217 ( 3.73) | | | 5824 |
| 1925 | | | 41 ( 0.69) | 8 ( 0.13) | 253 ( 4.26) | | | 5939 |
| 1926 | | | 37 ( 0.61) | 15 ( 0.25) | 235 ( 3.89) | | | 6044 |
| 1927 | | | 45 ( 0.73) | 14 ( 0.23) | 224 ( 3.64) | | | 6149 |
| 1928 | | | 42 ( 0.67) | 11 ( 0.18) | 222 ( 3.55) | | | 6252 |
| 1929 | | | 48 ( 0.75) | 15 ( 0.24) | 244 ( 3.84) | | | 6359 |
| 1930 | | | 29 ( 0.45) | 14 ( 0.22) | 224 ( 3.47) | | | 6463 |
| 1931 | | | 51 ( 0.78) | 9 ( 0.14) | 211 ( 3.24) | | | 6516 |
| 1932 | | | 32 ( 0.49) | 14 ( 0.21) | 217 ( 3.30) | | | 6569 |
| 1933 | | | 36 ( 0.54) | 16 ( 0.24) | 216 ( 3.26) | | | 6622 |
| 1934 | | | 32 ( 0.48) | 6 ( 0.09) | 191 ( 2.86) | | | 6675 |
| 1935 | | | 40 ( 0.59) | 10 ( 0.15) | 188 ( 2.80) | | | 6726 |
| 1936 | | | 34 ( 0.50) | 14 ( 0.21) | 182 ( 2.68) | | | 6789 |
| 1937 | | | 38 ( 0.55) | 20 ( 0.29) | 227 ( 3.31) | | | 6852 |
| 1938 | | | 37 ( 0.54) | 9 ( 0.13) | 60 ( 0.87) | 85 ( 1.23) | 754 ( 10.90) | 6915 |
| 1939 | | | 34 ( 0.49) | 10 ( 0.14) | 64 ( 0.92) | 117 ( 1.68) | 988 ( 14.16) | 6978 |
| 1940 | | | | | | | | |
| 1941 | | | 33 ( 0.46) | 28 ( 0.39) | 46 ( 0.65) | 100 ( 1.41) | 697 ( 9.80) | 7110 |
| 1942 | | | 41 ( 0.57) | 14 ( 0.19) | 74 ( 1.03) | 134 ( 1.87) | 748 ( 10.42) | 7181 |
| 1943 | | | 37 ( 0.51) | 24 ( 0.33) | 62 ( 0.86) | 148 ( 2.05) | 868 ( 12.00) | 7235 |
| 1944 | | | | | | | | |
| 1945 | | | | | | | | |
| 1946 | | | 37 ( 0.50) | 25 ( 0.33) | 130 ( 1.74) | 110 ( 1.47) | 1033 ( 13.84) | 7465 |
| 1947 | | | 51 ( 0.67) | 22 ( 0.29) | 170 ( 2.24) | 128 ( 1.69) | 1027 ( 13.55) | 7579 |
| 1948 | | | 59 ( 0.77) | 13 ( 0.17) | 173 ( 2.24) | 104 ( 1.35) | 1072 ( 13.91) | 7709 |

AUSTRALIA *                          NUMBER OF CONVICTIONS -- (RATE PER 100,000)          CONTINUED

| YEAR | MURDER ( ) | MANSLTR ( ) | HOMICIDE (1) | RAPE (2) | ASSAULT (3) | ROBBERY (4) | THEFT (5) | POP |
|------|-----------|-------------|--------------|----------|-------------|-------------|-----------|-----|
| 1949 | | | 60 ( 0.76) | 10 ( 0.13) | 175 ( 2.21) | 138 ( 1.75) | 1073 ( 13.57) | 7908 |
| 1950 | | | 67 ( 0.82) | 17 ( 0.21) | 215 ( 2.63) | 170 ( 2.08) | 1103 ( 13.49) | 8179 |
| 1951 | | | 67 ( 0.80) | 19 ( 0.23) | 203 ( 2.41) | 176 ( 2.09) | 1158 ( 13.75) | 8422 |
| 1952 | | | 61 ( 0.71) | 21 ( 0.24) | 207 ( 2.40) | 165 ( 1.91) | 1457 ( 16.87) | 8636 |
| 1953 | | | 83 ( 0.94) | 22 ( 0.25) | 318 ( 3.61) | 137 ( 1.55) | 1405 ( 15.94) | 8815 |
| 1954 | | | 76 ( 0.85) | 26 ( 0.29) | 270 ( 3.00) | 197 ( 2.19) | 1333 ( 14.83) | 8987 |
| 1955 | | | 83 ( 0.90) | 17 ( 0.18) | 271 ( 2.95) | 158 ( 1.72) | 1373 ( 14.92) | 9201 |
| 1956 | | | 60 ( 0.64) | 43 ( 0.46) | 268 ( 2.84) | 162 ( 1.72) | 1805 ( 19.15) | 9426 |
| 1957 | | | 79 ( 0.82) | 13 ( 0.13) | 241 ( 2.50) | 184 ( 1.91) | 2286 ( 23.71) | 9640 |
| 1958 | | | 80 ( 0.81) | 25 ( 0.25) | 245 ( 2.49) | 158 ( 1.61) | 2533 ( 25.74) | 9842 |
| 1959 | | | 93 ( 0.92) | 29 ( 0.29) | 212 ( 2.11) | 188 ( 1.87) | 2404 ( 23.91) | 10056 |
| 1960 | | | 87 ( 0.85) | 39 ( 0.38) | 222 ( 2.16) | 229 ( 2.23) | 2727 ( 26.54) | 10275 |
| 1961 | | | 90 ( 0.86) | 70 ( 0.67) | 254 ( 2.42) | 223 ( 2.12) | 3235 ( 30.79) | 10508 |
| 1962 | | | 114 ( 1.06) | 48 ( 0.45) | 231 ( 2.16) | 298 ( 2.78) | 3026 ( 28.27) | 10705 |
| 1963 | | | 95 ( 0.87) | 83 ( 0.76) | 185 ( 1.69) | 135 ( 1.24) | 3096 ( 28.35) | 10916 |
| 1964 | 143 ( 1.28) | 34 ( 0.31) | 272 ( 2.44) | 262 ( 2.35) | 1924 ( 17.28) | 592 ( 5.32) | 39695 ( 356.46) | 11136 |
| 1965 | 141 ( 1.24) | 29 ( 0.25) | 271 ( 2.38) | 257 ( 2.26) | 1895 ( 16.64) | 730 ( 6.41) | 46626 ( 409.36) | 11390 |
| 1966 | 163 ( 1.41) | 29 ( 0.25) | 321 ( 2.77) | 251 ( 2.16) | 2227 ( 19.20) | 992 ( 8.55) | 56841 ( 490.01) | 11600 |
| 1967 | 137 ( 1.16) | 36 ( 0.31) | 300 ( 2.54) | 311 ( 2.64) | 2158 ( 18.29) | 960 ( 8.14) | 19072 ( 161.63) | 11800 |
| 1968 | 143 ( 1.19) | 43 ( 0.36) | 300 ( 2.50) | 363 ( 3.02) | 2508 ( 20.90) | 1280 ( 10.67) | 23562 ( 196.35) | 12000 |
| 1969 | 157 ( 1.28) | 33 ( 0.27) | 280 ( 2.28) | 364 ( 2.97) | 2483 ( 20.25) | 1599 ( 13.04) | 25597 ( 208.78) | 12260 |
| 1970 | 172 ( 1.37) | 22 ( 0.18) | 339 ( 2.71) | 416 ( 3.33) | 3282 ( 26.24) | 1999 ( 15.98) | 30591 ( 244.53) | 12510 |
| 1971 | 185 ( 1.45) | 39 ( 0.31) | 343 ( 2.69) | 578 ( 4.53) | 3862 ( 30.27) | 2818 ( 22.08) | 33925 ( 265.87) | 12760 |
| 1972 | 207 ( 1.60) | 46 ( 0.36) | 422 ( 3.26) | 544 ( 4.20) | 4288 ( 33.06) | 3045 ( 23.50) | 36976 ( 285.31) | 12960 |

FOOTNOTES:
* CASES KNOWN AFTER 1963
1. MURDER,MANSLAUGHTER & ATTEMPTED MURDER
2. INCLUDES CRIMES OF LUST BEFORE 1916
3. OFFENSES AGAINST THE PERSON, 1903-1937;
   AGGRAVATED AND COMMON ASSAULT, 1938-1963;
   SERIOUS ASSAULT, 1964-1972
4. ROBBERY AND STEALING FROM THE PERSON
5. BREAKING AND ENTERING: 1967-1972 - EXCLUDES OFFENSES
   INVOLVING PROPERTY VALUED AT $100 OR LESS; 1971 - EXCLUDES
   8,175 ATTEMPTED BREAKING AND ENTERING OFFENSES WHICH WERE
   REPORTED OR BECAME KNOWN; 1972 - EXCLUDES 8,282 ATTEMPTED
   BREAKING AND ENTERING OFFENSES WHICH WERE REPORTED OR
   BECAME KNOWN

AUSTRIA                                    CRIME STATISTICS -- (RATE PER 100,000)

| YEAR | MURDER ( ) | MANSLTR ( ) | HOMICIDE ( ) | RAPE ( ) | ASSAULT (1) | ROBBERY ( ) | THEFT (2) | POP |
|------|------------|-------------|--------------|----------|-------------|-------------|-----------|-----|
| 1953 | 60 ( 0.86) | 23 ( 0.33) | | 698 ( 10.04) | 2830 ( 40.70) | 250 ( 3.60) | 20720 ( 297.96) | 6954 |
| 1954 | 68 ( 0.98) | 23 ( 0.33) | | 609 ( 8.74) | 2753 ( 39.50) | 272 ( 3.90) | 20930 ( 300.33) | 6969 |
| 1955 | 66 ( 0.95) | 30 ( 0.43) | | 730 ( 10.47) | 2888 ( 41.41) | 311 ( 4.46) | 22085 ( 316.68) | 6974 |
| 1956 | 88 ( 1.26) | 20 ( 0.29) | | 659 ( 9.44) | 2584 ( 37.00) | 292 ( 4.18) | 24627 ( 352.67) | 6983 |
| 1957 | 58 ( 0.84) | 33 ( 0.47) | | 540 ( 7.72) | 2907 ( 41.55) | 338 ( 4.83) | 28287 ( 404.27) | 6997 |
| 1958 | 53 ( 0.75) | 14 ( 0.20) | | 640 ( 9.12) | 2914 ( 41.50) | 412 ( 5.87) | 28569 ( 406.91) | 7021 |
| 1959 | 62 ( 0.88) | 30 ( 0.43) | | 683 ( 9.69) | 2855 ( 40.50) | 353 ( 5.01) | 29554 ( 419.27) | 7049 |
| 1960 | 55 ( 0.78) | 25 ( 0.35) | | 671 ( 9.52) | 2856 ( 40.52) | 362 ( 5.14) | 30569 ( 433.73) | 7048 |
| 1961 | 45 ( 0.63) | 25 ( 0.35) | | 641 ( 9.04) | 2424 ( 34.20) | 383 ( 5.40) | 32261 ( 455.21) | 7087 |
| 1962 | 54 ( 0.76) | 20 ( 0.28) | | 709 ( 9.94) | 2566 ( 35.99) | 367 ( 5.15) | 36618 ( 513.58) | 7130 |
| 1963 | 47 ( 0.66) | 20 ( 0.28) | | 600 ( 8.37) | 2761 ( 38.50) | 378 ( 5.27) | 38618 ( 538.46) | 7172 |
| 1964 | 44 ( 0.61) | 22 ( 0.30) | | 669 ( 9.27) | 2695 ( 37.33) | 405 ( 5.61) | 40180 ( 556.51) | 7220 |
| 1965 | 45 ( 0.62) | 29 ( 0.40) | | 604 ( 8.33) | 2648 ( 36.52) | 433 ( 5.97) | 45059 ( 621.50) | 7250 |
| 1966 | 49 ( 0.67) | 14 ( 0.19) | | 582 ( 7.98) | 2667 ( 36.58) | 461 ( 6.32) | 50667 ( 695.02) | 7290 |
| 1967 | 53 ( 0.72) | 24 ( 0.33) | | 583 ( 7.96) | 2954 ( 40.36) | 597 ( 8.16) | 55841 ( 762.85) | 7320 |
| 1968 | 45 ( 0.61) | 10 ( 0.14) | | 600 ( 8.16) | 2845 ( 38.71) | 520 ( 7.07) | 62873 ( 855.41) | 7350 |
| 1969 | 52 ( 0.71) | 30 ( 0.41) | | 659 ( 8.94) | 2923 ( 39.66) | 550 ( 7.46) | 65496 ( 888.68) | 7370 |
| 1970 | 70 ( 0.95) | 35 ( 0.47) | | 673 ( 9.11) | 3178 ( 43.00) | 549 ( 7.43) | 67676 ( 915.78) | 7390 |
| 1971 | 69 ( 0.92) | 36 ( 0.48) | | 625 ( 8.38) | 2875 ( 38.54) | 684 ( 9.17) | 67649 ( 906.82) | 7460 |
| 1972 | 63 ( 0.84) | 40 ( 0.53) | | 679 ( 9.07) | 3136 ( 41.87) | 761 ( 10.16) | 84127 (1123.19) | 7490 |
| 1973 | 70 ( 0.93) | 34 ( 0.45) | | 630 ( 8.38) | 3132 ( 41.64) | 825 ( 10.97) | 81687 (1085.97) | 7522 |

FOOTNOTES:
1. SERIOUS BODILY INJURY
2. AGGRAVATED THEFT

## BAHRAIN

### NUMBER OF OFFENSES REPORTED -- (RATE PER 100,000)

| YEAR | MURDER ( ) | MANSLTR ( ) | HOMICIDE (1) | RAPE ( ) | ASSAULT ( ) | ROBBERY ( ) | THEFT ( ) | POP |
|------|-----------|-------------|--------------|----------|-------------|-------------|-----------|-----|
| 1963 | | | 2 ( 1.18) | 11 ( 6.47) | 10 ( 5.88) | 20 ( 11.76) | 0 ( 0.00) | 170 |
| 1964 | | | 4 ( 2.26) | 8 ( 4.52) | 6 ( 3.39) | 13 ( 7.34) | 0 ( 0.00) | 177 |
| 1965 | | | 3 ( 1.62) | 5 ( 2.70) | 8 ( 4.32) | 22 ( 11.89) | 0 ( 0.00) | 185 |
| 1966 | | | 2 ( 1.04) | 5 ( 2.69) | 7 ( 3.63) | 16 ( 8.29) | 2 ( 1.04) | 193 |
| 1967 | | | 1 ( 0.53) | 6 ( 3.16) | 4 ( 2.11) | 14 ( 7.37) | 1 ( 0.53) | 190 |
| 1968 | | | 5 ( 2.50) | 1 ( 0.50) | 3 ( 1.50) | 7 ( 3.50) | 1 ( 0.50) | 200 |
| 1969 | | | 2 ( 0.95) | 4 ( 1.90) | 4 ( 1.90) | 15 ( 7.14) | 2 ( 0.95) | 210 |
| 1970 | | | 2 ( 0.91) | 1 ( 0.45) | 3 ( 1.36) | 14 ( 6.36) | 3 ( 1.36) | 220 |
| 1971 | | | 2 ( 0.91) | 3 ( 1.36) | 4 ( 1.82) | 16 ( 7.27) | 4 ( 1.82) | 220 |
| 1972 | | | 1 ( 0.45) | 0 ( 0.00) | 8 ( 3.64) | 16 ( 7.27) | 2 ( 0.91) | 220 |
| 1973 | | | 2 ( 0.88) | 5 ( 2.20) | 4 ( 1.76) | 28 ( 12.33) | 0 ( 0.00) | 227 |

FOOTNOTES:

1. MURDER AND MANSLAUGHTER

```
BELGIUM                              CRIME STATISTICS ** (RATE PER 100,000)
```

| YEAR | MURDER ( ) | MANSLTR ( ) | HOMICIDE ( ) | RAPE (1) | ASSAULT ( ) | ROBBERY ( ) | THEFT (2) | POP |
|---|---|---|---|---|---|---|---|---|
| 1909 | 57 ( 0.77) | | | | 25725 ( 347.17) | | 11937 ( 161.09) | 7410 |
| 1910 | 40 ( 0.54) | | | | 27796 ( 374.46) | | 11534 ( 155.38) | 7423 |
| 1911 | 29 ( 0.39) | | | | 26583 ( 357.49) | | 10928 ( 146.96) | 7436 |
| 1912 | 55 ( 0.74) | | | | 27696 ( 371.81) | | 12239 ( 164.30) | 7449 |
| 1913 | 44 ( 0.59) | | | | 27134 ( 363.63) | | 12234 ( 163.95) | 7462 |
| 1914 | | | | | | | | |
| GAP | | | | | | | | |
| 1919 | 110 ( 1.48) | | | | 5173 ( 69.81) | | 19700 ( 265.86) | 7410 |
| 1920 | 93 ( 1.26) | | | | 9427 ( 127.31) | | 15899 ( 214.71) | 7405 |
| 1921 | | | | | | | | |
| GAP | | | | | | | | |
| 1941 | | | 11 ( 0.13) | 294 ( 3.55) | | | 15689 ( 189.62) | 8274 |
| 1942 | | | 15 ( 0.18) | 311 ( 3.77) | | | 22440 ( 272.13) | 8246 |
| 1943 | | | 28 ( 0.34) | 308 ( 3.74) | | | 24018 ( 291.45) | 8241 |
| 1944 | | | 5 ( 0.06) | 254 ( 3.06) | | | 12851 ( 155.00) | 8291 |
| 1945 | | | 33 ( 0.40) | 259 ( 3.11) | | | 5844 ( 70.08) | 8339 |
| 1946 | | | 37 ( 0.44) | 399 ( 4.77) | | | 7520 ( 89.88) | 8367 |
| 1947 | | | 45 ( 0.53) | 451 ( 5.34) | | | 6981 ( 82.62) | 8450 |
| 1948 | | | 49 ( 0.57) | 562 ( 6.57) | | | 7942 ( 92.81) | 8557 |
| 1949 | | | 41 ( 0.48) | 783 ( 9.09) | | | 6884 ( 79.92) | 8614 |
| 1950 | | | 29 ( 0.34) | 775 ( 8.97) | | | 4966 ( 57.48) | 8639 |
| 1951 | | | 22 ( 0.25) | 661 ( 7.62) | | | 5653 ( 65.14) | 8678 |
| 1952 | | | 27 ( 0.31) | 747 ( 8.56) | | | 6932 ( 79.40) | 8730 |
| 1953 | | | 20 ( 0.23) | 749 ( 8.53) | | | 5300 ( 60.38) | 8778 |
| 1954 | | | 11 ( 0.12) | 705 ( 7.99) | | | 4438 ( 50.32) | 8819 |
| 1955 | | | 18 ( 0.20) | 713 ( 8.04) | | | 4266 ( 48.11) | 8868 |
| 1956 | | | 14 ( 0.16) | 806 ( 9.03) | | | 4860 ( 54.46) | 8924 |
| 1957 | | | 15 ( 0.17) | 857 ( 9.53) | | | 4986 ( 55.47) | 8989 |
| 1958 | | | 17 ( 0.19) | 825 ( 9.11) | | | 4974 ( 54.94) | 9053 |
| 1959 | | | 22 ( 0.24) | 1009 ( 11.08) | | | 4977 ( 54.67) | 9104 |
| 1960 | | | 21 ( 0.23) | 1130 ( 12.35) | | | 5558 ( 60.72) | 9153 |
| 1961 | | | 11 ( 0.12) | 1114 ( 12.13) | | | 5667 ( 61.71) | 9184 |
| 1962 | | | 18 ( 0.20) | 1141 ( 12.37) | | | 5714 ( 61.97) | 9221 |
| 1963 | | | 28 ( 0.30) | 1051 ( 11.31) | | | 5847 ( 62.94) | 9290 |
| 1964 | | | 16 ( 0.17) | 993 ( 10.59) | | | 5980 ( 63.77) | 9378 |
| 1965 | | | 24 ( 0.25) | 990 ( 10.47) | | | 5577 ( 58.95) | 9460 |
| 1966 | | | 26 ( 0.27) | 866 ( 9.09) | | | 6220 ( 65.27) | 9530 |
| 1967 | | | 27 ( 0.28) | 1049 ( 10.95) | | | 7158 ( 74.72) | 9580 |
| 1968 | | | 27 ( 0.28) | 1006 ( 10.46) | | | 7087 ( 73.67) | 9620 |
| 1969 | | | 34 ( 0.35) | 908 ( 9.41) | | | 6274 ( 65.02) | 9650 |

FOOTNOTES:
1. RAPE AND CRIMES AGAINST MODESTY
2. ROBBERY AND THEFT

| YEAR | MURDER (1) | MANSLTR ( ) | HOMICIDE ( ) | RAPE ( ) | ASSAULT (2) | ROBBERY ( ) | THEFT ( ) | POP |
|------|-----------|-------------|--------------|----------|-------------|-------------|-----------|-----|
| 1941 | 1 ( 3.13) | 1 ( 3.13) | | 4 ( 12.50) | 106 ( 331.25) | 4 ( 12.50) | 393 (1228.13) | 32 |
| 1942 | 1 ( 3.03) | 0 ( 0.00) | | 1 ( 3.03) | 133 ( 403.03) | 2 ( 6.06) | 415 (1257.58) | 33 |
| 1943 | 1 ( 3.03) | 1 ( 3.03) | | 0 ( 0.00) | 126 ( 381.82) | 5 ( 15.15) | 335 (1015.15) | 33 |
| 1944 | 0 ( 0.00) | 1 ( 2.94) | | 0 ( 0.00) | 138 ( 405.88) | 3 ( 8.82) | 365 (1073.53) | 34 |
| 1945 | 2 ( 5.71) | 1 ( 2.86) | | 3 ( 8.57) | 98 ( 280.00) | 6 ( 17.14) | 409 (1168.57) | 35 |
| 1946 | 0 ( 0.00) | 1 ( 2.86) | | 2 ( 5.71) | 113 ( 322.86) | 2 ( 5.71) | 419 (1197.14) | 35 |
| 1947 | 1 ( 2.86) | 1 ( 2.86) | | 1 ( 2.86) | 98 ( 280.00) | 9 ( 25.71) | 581 (1660.00) | 35 |
| 1948 | 0 ( 0.00) | 0 ( 0.00) | | 13 ( 36.11) | 85 ( 236.11) | 4 ( 11.11) | 598 (1661.11) | 36 |
| 1949 | 2 ( 5.56) | 0 ( 0.00) | | 7 ( 19.44) | 91 ( 252.78) | 3 ( 8.33) | 515 (1430.56) | 36 |
| 1950 | 1 ( 2.70) | 2 ( 5.41) | | 4 ( 10.81) | 82 ( 221.62) | 2 ( 5.41) | 503 (1359.46) | 37 |
| 1951 | 0 ( 0.00) | 1 ( 2.63) | | 7 ( 18.42) | 101 ( 265.79) | 5 ( 13.16) | 552 (1452.63) | 38 |
| 1952 | | | | | | | | |
| 1953 | 1 ( 2.56) | 1 ( 2.56) | | 4 ( 10.26) | 60 ( 153.85) | 13 ( 33.33) | 752 (1928.21) | 39 |
| 1954 | 3 ( 7.50) | 2 ( 5.00) | | 0 ( 0.00) | 71 ( 177.50) | 12 ( 30.00) | 796 (1990.00) | 40 |
| 1955 | 0 ( 0.00) | 0 ( 0.00) | | 3 ( 7.50) | 78 ( 195.00) | 13 ( 32.50) | 832 (2080.00) | 40 |
| 1956 | 2 ( 4.88) | 1 ( 2.44) | | 5 ( 12.20) | 89 ( 217.07) | 15 ( 36.59) | 1109 (2704.88) | 41 |
| 1957 | 0 ( 0.00) | 1 ( 2.38) | | 1 ( 2.38) | 113 ( 269.05) | 9 ( 21.43) | 896 (2133.33) | 42 |
| 1958 | 0 ( 0.00) | 2 ( 4.65) | | 5 ( 11.63) | 96 ( 223.26) | 11 ( 25.58) | 1910 (4441.86) | 43 |
| 1959 | 7 ( 16.28) | 1 ( 2.33) | | 4 ( 9.30) | 134 ( 311.63) | 11 ( 25.58) | 1757 (4086.05) | 43 |
| 1960 | 2 ( 4.55) | 1 ( 2.27) | | 3 ( 6.82) | 100 ( 227.27) | 14 ( 31.82) | 2558 (5813.63) | 44 |
| 1961 | 1 ( 2.22) | 2 ( 4.44) | | 2 ( 4.44) | 97 ( 215.56) | 15 ( 33.33) | 2518 (5595.55) | 45 |
| 1962 | 1 ( 2.17) | 0 ( 0.00) | | 2 ( 4.35) | 127 ( 276.09) | 21 ( 45.65) | 2909 (6323.91) | 46 |
| 1963 | 0 ( 0.00) | 0 ( 0.00) | | 7 ( 14.89) | 124 ( 263.83) | 22 ( 46.81) | 3059 (6508.51) | 47 |
| 1964 | 2 ( 4.17) | 1 ( 2.08) | | 5 ( 10.42) | 132 ( 275.00) | 22 ( 45.83) | 2800 (5833.33) | 48 |
| 1965 | 0 ( 0.00) | 0 ( 0.00) | | 3 ( 6.00) | 121 ( 242.00) | 18 ( 36.00) | 3416 (6832.00) | 50 |
| 1966 | 1 ( 2.00) | 3 ( 6.00) | | 3 ( 6.00) | 147 ( 294.00) | 12 ( 24.00) | 3305 (6610.00) | 50 |
| 1967 | 2 ( 4.00) | 0 ( 0.00) | | 5 ( 10.00) | 176 ( 352.00) | 16 ( 32.00) | 3759 (7518.00) | 50 |
| 1968 | 2 ( 4.00) | 4 ( 8.00) | | 2 ( 4.00) | 55 ( 110.00) | 11 ( 22.00) | 2509 (5018.00) | 50 |
| 1969 | 1 ( 2.00) | 1 ( 2.00) | | 4 ( 8.00) | 98 ( 196.00) | 11 ( 22.00) | 3092 (6184.00) | 50 |
| 1970 | | | | | | | | |
| 1971 | 3 ( 6.00) | 0 ( 0.00) | | 5 ( 10.00) | 156 ( 312.00) | 26 ( 52.00) | 2120 (4240.00) | 50 |
| 1972 | 2 ( 3.92) | 0 ( 0.00) | | 3 ( 5.88) | 155 ( 303.92) | 17 ( 33.33) | 1769 (3468.63) | 51 |
| 1973 | 7 ( 13.46) | 1 ( 1.92) | | 5 ( 9.62) | 100 ( 192.31) | 33 ( 63.46) | 1837 (3532.69) | 52 |
| 1974 | 5 ( 9.62) | 1 ( 1.92) | | 5 ( 9.62) | 112 ( 215.38) | 39 ( 75.00) | 2594 (4988.46) | 52 |

FOOTNOTES:
1. MURDER AND ATTEMPTED MURDER AFTER 1959
2. INCLUDES ASSAULT AND SERIOUS ASSAULT, 1953-1961

18

```
----------------------------------------------------------------------------------------------------
BOLIVIA *                          CRIME STATISTICS -- (RATE PER 100,000)

  YEAR        MURDER ( )   MANSLTR ( )  HOMICIDE ( )      RAPE ( )      ASSAULT ( )    ROBBERY ( )        THEFT ( )    POP

  1961        553 ( 15.80)                              364 ( 10.40)                                1868 (  53.37)   3500

FOOTNOTES:
       * COEFFICIENT OF OFFENDERS; RAW CRIME DATA FROM INTERPOL.
         RATES COMPUTED FROM POPULATION FIGURES ABOVE
```

　NUMBER OF OFFENSES REPORTED -- (RATE PER 100,000)

| YEAR | MURDER ( ) | MANSLTR ( ) | HOMICIDE ( ) | RAPE ( ) | ASSAULT (1) | ROBBERY ( ) | THEFT (2) | POP |
|------|-----------|-------------|--------------|----------|-------------|-------------|-----------|-----|
| 1971 | 29 ( 4.33) | 25 ( 3.73) | | 138 ( 20.60) | 2600 ( 388.06) | 38 ( 5.67) | 4352 ( 649.55) | 670 |

FOOTNOTES:
1. SERIOUS AND COMMON ASSAULT
2. BURGLARY, STEALING STOCK, AND OTHER THEFT

```
BRUNEI *                        CRIME STATISTICS -- (RATE PER 100,000)

   YEAR       MURDER ( )   MANSLTR ( )  HOMICIDE (1)      RAPE ( )     ASSAULT ( )     ROBBERY ( )          THEFT ( )     POP

   1964       0 (  0.00)                0 ( 0.00)     1 (   1.00)    68 (  68.00)    0 (   0.00)     122 ( 122.00)    100
   1965       0 (  0.00)                0 ( 0.00)     2 (   2.00)    56 (  56.00)    0 (   0.00)     113 ( 113.00)    100
   1966       1 (  0.91)                0 ( 0.00)     3 (   2.73)    62 (  56.36)    0 (   0.00)     185 ( 168.18)    110
   1967       1 (  0.91)                0 ( 0.00)     0 (   0.00)    13 (  11.82)    0 (   0.00)     189 ( 171.82)    110
   1968       0 (  0.00)                0 ( 0.00)     1 (   0.83)    31 (  25.83)    0 (   0.00)     166 ( 138.33)    120
   1969       1 (  0.83)                0 ( 0.00)     1 (   0.83)    46 (  38.33)    2 (   1.67)     245 ( 204.17)    120

   1970       2 (  1.54)                0 ( 0.00)     0 (   0.00)   250 ( 192.31)    4 (   3.08)     284 ( 218.46)    130
   1971       0 (  0.00)                0 ( 0.00)     3 (   2.14)   363 ( 259.29)    2 (   1.43)     329 ( 235.00)    140
   1972       0 (  0.00)                0 ( 0.00)     0 (   0.00)   316 ( 225.71)    4 (   2.86)     335 ( 239.29)    140
   1973       2 (  1.40)                0 ( 0.00)     4 (   2.80)   336 ( 234.97)    4 (   2.80)     297 ( 207.69)    143
   1974       2 (  1.37)                0 ( 0.00)     3 (   2.05)   175 ( 119.86)    9 (   6.16)     254 ( 173.97)    146

FOOTNOTES:
   * RAW CRIME DATA FROM INTERPOL: RATES COMPUTED FROM
     POPULATION FIGURES ABOVE
   1: CULPABLE HOMICIDE
```

```
-------------------------------------------------------------------------------------------------------------
BRUNEI *                          CRIME STATISTICS -- (RATE PER 100,000)

   YEAR        MURDER ( )   MANSLTR ( )  HOMICIDE (1)      RAPE ( )    ASSAULT ( )    ROBBERY ( )       THEFT ( )    POP

   1964        0 (  0.00)                0 ( 0.00)      1 (  1.00)   68 (  68.00)   0 (  0.00)    122 ( 122.00)   100
   1965        0 (  0.00)                0 ( 0.00)      2 (  2.00)   56 (  56.00)   0 (  0.00)    113 ( 113.00)   100
   1966        1 (  0.91)                0 ( 0.00)      3 (  2.73)   62 (  56.36)   0 (  0.00)    185 ( 168.18)   110
   1967        1 (  0.91)                0 ( 0.00)      0 (  0.00)   13 (  11.82)   0 (  0.00)    189 ( 171.82)   110
   1968        0 (  0.00)                0 ( 0.00)      1 (  0.83)   31 (  25.83)   0 (  0.00)    166 ( 138.33)   120
   1969        1 (  0.83)                0 ( 0.00)      1 (  0.83)   46 (  38.33)   2 (  1.67)    245 ( 204.17)   120

   1970        2 (  1.54)                0 ( 0.00)      0 (  0.00)  250 ( 192.31)   4 (  3.08)    284 ( 218.46)   130
   1971        0 (  0.00)                0 ( 0.00)      3 (  2.14)  363 ( 259.29)   2 (  1.43)    329 ( 235.00)   140
   1972        0 (  0.00)                0 ( 0.00)      0 (  0.00)  316 ( 225.71)   4 (  2.86)    335 ( 239.29)   140
   1973        2 (  1.40)                0 ( 0.00)      4 (  2.80)  336 ( 234.97)   4 (  2.80)    297 ( 207.69)   143
   1974        2 (  1.37)                0 ( 0.00)      3 (  2.05)  175 ( 119.86)   9 (  6.16)    254 ( 173.97)   146

FOOTNOTES:
    * RAW CRIME DATA FROM INTERPOL; RATES COMPUTED FROM
      POPULATION FIGURES ABOVE
    1. CULPABLE HOMICIDE
```

| BURMA * | | NUMBER OF OFFENSES REPORTED -- (RATE PER 100,000) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| YEAR | MURDER ( ) | MANSLTR ( ) | HOMICIDE ( ) | RAPE (1) | ASSAULT ( ) | ROBBERY ( ) | THEFT ( ) | POP |
| 1953 | 11495 ( 58.32) | | | 2207 ( 11.20) | | 38573 ( 195.70) | 46164 ( 234.22) | 19710 |
| 1954 | 9072 ( 45.27) | | | 1944 ( 9.70) | | 31482 ( 157.10) | 37613 ( 187.69) | 20040 |
| 1955 | 7246 ( 35.54) | | | 1737 ( 8.52) | | 25379 ( 124.47) | 40899 ( 201.07) | 20390 |
| 1956 | 12034 ( 58.05) | | | 2504 ( 12.08) | | 36154 ( 174.40) | 45860 ( 221.23) | 20730 |
| 1957 | 2302 ( 10.89) | | | 528 ( 2.50) | | 6320 ( 29.91) | 9180 ( 43.45) | 21130 |
| 1958 | 10256 ( 47.64) | | | 2463 ( 11.44) | | 30133 ( 139.96) | 43388 ( 201.52) | 21530 |
| 1959 | 7031 ( 32.05) | | | 3761 ( 17.14) | | 16661 ( 75.94) | 34033 ( 155.12) | 21940 |
| | | | | | | | | |
| 1960 | 7879 ( 35.24) | | | 3427 ( 15.33) | | 19566 ( 87.50) | 33480 ( 149.73) | 22360 |
| 1961 | 8232 ( 36.14) | | | 3549 ( 15.58) | | 20307 ( 89.14) | 34713 ( 152.38) | 22780 |
| 1962 | 7400 ( 31.82) | | | 3704 ( 15.93) | | 15992 ( 68.77) | 37052 ( 159.34) | 23253 |
| 1963 | 6774 ( 28.54) | | | 3717 ( 15.66) | | 14968 ( 63.06) | 41030 ( 172.87) | 23735 |
| 1964 | 6792 ( 28.03) | | | 3720 ( 15.35) | | 17712 ( 73.10) | 45948 ( 189.64) | 24229 |
| 1965 | 9120 ( 36.88) | | | 5040 ( 20.38) | | 25368 ( 102.58) | 64656 ( 261.45) | 24730 |
| 1966 | 9975 ( 39.50) | | | 4200 ( 16.63) | | 30600 ( 121.19) | 68725 ( 272.18) | 25250 |
| 1967 | 9698 ( 37.57) | | | 3562 ( 13.80) | | 29432 ( 114.03) | 88764 ( 343.91) | 25810 |
| 1968 | 8505 ( 32.23) | | | 6831 ( 25.88) | | 20061 ( 76.02) | 75141 ( 284.73) | 26390 |
| 1969 | 7755 ( 28.74) | | | 3273 ( 12.13) | | 15098 ( 55.96) | 60115 ( 222.81) | 26980 |
| | | | | | | | | |
| 1970 | 7252 ( 26.29) | | | 3416 ( 12.39) | | 62804 ( 227.72) | 11172 ( 40.51) | 27580 |

FOOTNOTES:
* RAW CRIME DATA FROM INTERPOL; RATES COMPUTED FROM
  POPULATION FIGURES ABOVE
1. SEX OFFENSES

CAMEROON *

## NUMBER OF OFFENSES REPORTED -- (RATE PER 100,000)

| YEAR | MURDER ( ) | MANSLTR ( ) | HOMICIDE ( ) | RAPE (1) | ASSAULT ( ) | ROBBERY ( ) | THEFT ( ) | POP |
|---|---|---|---|---|---|---|---|---|
| 1965 | 256 ( 4.82) | | | | | | | |
| 1966 | 146 ( 2.69) | | | 49 ( 0.92) | | | | |
| 1967 | | | | 50 ( 0.92) | | 183 ( 3.45) | 355 ( 6.69) | 5310 |
| 1968 | 30 ( 0.53) | | | | | 217 ( 4.00) | 267 ( 4.93) | 5420 |
| 1969 | 119 ( 2.07) | | | 35 ( 0.62) | | 160 ( 2.84) | 255 ( 4.53) | 5630 |
| | | | | 138 ( 2.40) | | 512 ( 8.92) | 2326 ( 40.52) | 5740 |
| 1970 | 102 ( 1.75) | | | 149 ( 2.55) | | 627 ( 10.74) | 5624 ( 96.30) | 5840 |

FOOTNOTES:
* RAW CRIME DATA FROM INTERPOL; RATES COMPUTED FROM POPULATION FIGURES ABOVE
1. SEX OFFENSES

| YEAR | MURDER (1) | MANSLTR (2) | HOMICIDE (3) | RAPE ( ) | ASSAULT ( ) | ROBBERY (4) | THEFT (5) | POP |
|---|---|---|---|---|---|---|---|---|
| 1901 | 7 ( 0.13) | 12 ( 0.22) | | | 346 ( 6.44) | 52 ( 0.97) | 316 ( 5.88) | 5371 |
| 1902 | 11 ( 0.20) | 17 ( 0.31) | | | 522 ( 9.40) | 29 ( 0.52) | 287 ( 5.17) | 5555 |
| 1903 | 8 ( 0.14) | 14 ( 0.24) | | | 680 ( 11.85) | 81 ( 1.41) | 346 ( 6.03) | 5739 |
| 1904 | 14 ( 0.24) | 19 ( 0.32) | | | 699 ( 11.80) | 92 ( 1.55) | 366 ( 6.18) | 5923 |
| 1905 | 12 ( 0.20) | 15 ( 0.25) | | | 651 ( 10.66) | 84 ( 1.38) | 477 ( 7.81) | 6107 |
| 1906 | 3 ( 0.05) | 15 ( 0.24) | | | 592 ( 9.41) | 62 ( 0.99) | 392 ( 6.23) | 6291 |
| 1907 | 8 ( 0.12) | 24 ( 0.37) | | | 728 ( 11.24) | 99 ( 1.53) | 318 ( 4.91) | 6475 |
| 1908 | 14 ( 0.21) | 22 ( 0.33) | | | 1179 ( 17.71) | 101 ( 1.52) | 507 ( 7.61) | 6659 |
| 1909 | 18 ( 0.26) | 24 ( 0.35) | | | 1264 ( 18.47) | 92 ( 1.34) | 313 ( 4.57) | 6843 |
| 1910 GAP | | | | | | | | |
| 1919 | | 60 ( 0.69) | | | 1323 ( 15.31) | 2300 ( 26.62) | 8605 ( 99.61) | 8639 |
| 1920 | | 69 ( 0.78) | | | 1389 ( 15.75) | 1868 ( 21.18) | 6559 ( 74.37) | 8820 |
| 1921 | | 56 ( 0.62) | | | 1474 ( 16.44) | 1966 ( 21.92) | 5938 ( 66.21) | 8968 |
| 1922 | | 64 ( 0.70) | | | 1451 ( 15.92) | 1207 ( 13.24) | 5865 ( 64.34) | 9116 |
| 1923 | | 53 ( 0.57) | | | 1302 ( 14.05) | 1704 ( 18.39) | 6164 ( 66.54) | 9264 |
| 1924 | | 47 ( 0.50) | | | 1440 ( 15.30) | 1905 ( 20.24) | 6610 ( 70.23) | 9412 |
| 1925 | | 55 ( 0.58) | | | 1400 ( 14.65) | 1624 ( 16.99) | 6651 ( 69.58) | 9559 |
| 1926 | | 60 ( 0.62) | 126 ( 1.29) | | 1743 ( 17.89) | 1896 ( 19.46) | 7108 ( 72.95) | 9744 |
| 1927 | | 51 ( 0.51) | 124 ( 1.25) | | 1470 ( 14.81) | 2167 ( 21.82) | 7870 ( 79.26) | 9929 |
| 1928 | | 54 ( 0.53) | 150 ( 1.48) | | 1923 ( 19.01) | 2553 ( 25.24) | 8777 ( 86.78) | 10114 |
| 1929 | | 85 ( 0.83) | 182 ( 1.77) | | 2202 ( 21.38) | 3696 ( 35.89) | 10540 ( 102.34) | 10299 |
| 1930 | | 68 ( 0.65) | 214 ( 2.04) | | 2268 ( 21.63) | 4327 ( 41.27) | 11610 ( 110.74) | 10484 |
| 1931 | | 77 ( 0.73) | 172 ( 1.62) | | 2336 ( 22.01) | 4267 ( 40.20) | 11144 ( 104.99) | 10614 |
| 1932 | | 68 ( 0.63) | 158 ( 1.47) | | 2144 ( 19.96) | 4347 ( 40.46) | 11257 ( 104.77) | 10744 |
| 1933 | | 63 ( 0.58) | 147 ( 1.35) | | 2167 ( 19.93) | 4238 ( 38.97) | 10719 ( 98.67) | 10874 |
| 1934 | | 58 ( 0.53) | 142 ( 1.29) | | 2471 ( 22.46) | 4147 ( 37.69) | 10603 ( 96.36) | 11004 |
| 1935 | | 56 ( 0.50) | 153 ( 1.37) | | 2667 ( 23.95) | 4841 ( 43.48) | 11026 ( 99.02) | 11135 |
| 1936 | | 81 ( 0.72) | 137 ( 1.22) | | 2553 ( 22.71) | 4604 ( 40.95) | 11905 ( 105.83) | 11244 |
| 1937 | | 57 ( 0.50) | 138 ( 1.22) | | 2440 ( 21.49) | 5509 ( 48.52) | 14048 ( 123.74) | 11353 |
| 1938 | | 68 ( 0.59) | 127 ( 1.11) | | 2639 ( 23.02) | 6147 ( 53.63) | 14763 ( 128.80) | 11462 |
| 1939 | | 70 ( 0.60) | 124 ( 1.07) | | 2996 ( 25.89) | 5416 ( 46.81) | 13464 ( 116.36) | 11571 |
| 1940 | | 65 ( 0.56) | 148 ( 1.27) | | 3632 ( 31.09) | 4217 ( 36.10) | 11632 ( 99.57) | 11682 |
| 1941 | | 60 ( 0.51) | 130 ( 1.10) | | 3914 ( 33.11) | 3920 ( 33.16) | 11056 ( 93.52) | 11822 |
| 1942 | | 68 ( 0.57) | 113 ( 0.94) | | 4301 ( 35.96) | 4223 ( 35.30) | 12158 ( 101.64) | 11962 |
| 1943 | | 44 ( 0.36) | 125 ( 1.03) | | 4088 ( 33.76) | 5291 ( 43.70) | 12565 ( 103.77) | 12108 |
| 1944 | | 30 ( 0.24) | 106 ( 0.86) | | 4189 ( 34.11) | 5297 ( 43.20) | 12280 ( 100.15) | 12262 |
| 1945 | | 59 ( 0.48) | 152 ( 1.23) | | 4814 ( 38.84) | 5783 ( 46.66) | 12522 ( 101.03) | 12394 |
| 1946 | | 87 ( 0.69) | 146 ( 1.16) | | 5994 ( 47.49) | 5304 ( 42.02) | 12172 ( 96.43) | 12622 |
| 1947 | | 73 ( 0.57) | 146 ( 1.13) | | 5462 ( 42.38) | 5541 ( 42.99) | 11719 ( 90.93) | 12888 |
| 1948 | | 67 ( 0.51) | 155 ( 1.18) | | 4929 ( 37.43) | 5076 ( 38.55) | 11217 ( 85.19) | 13167 |
| 1949 | | 77 ( 0.57) | 172 ( 1.28) | | 4194 ( 31.19) | 3952 ( 29.39) | 9457 ( 70.33) | 13447 |
| 1950 | | 94 ( 0.69) | 112 ( 0.82) | | 4153 ( 30.29) | 4292 ( 31.30) | 9162 ( 66.82) | 13712 |
| 1951 | | 107 ( 0.76) | 137 ( 0.98) | | 3491 ( 24.92) | 3883 ( 27.72) | 9870 ( 70.45) | 14009 |
| 1952 | | 95 ( 0.66) | 135 ( 0.94) | | 3874 ( 26.85) | 4040 ( 28.00) | 9777 ( 67.75) | 14430 |

| YEAR | MURDER (1) | MANSLTR (2) | HOMICIDE (3) | RAPE ( ) | ASSAULT ( ) | ROBBERY (4) | THEFT (5) | POP |
|---|---|---|---|---|---|---|---|---|
| 1953 |  | 89 ( 0.60) | 149 ( 1.01) |  | 3864 ( 26.14) | 4174 ( 28.24) | 9001 ( 60.90) | 14781 |
| 1954 | 125 ( 0.82) | 96 ( 0.63) | 157 ( 1.03) |  | 3765 ( 24.78) | 4743 ( 31.21) | 8746 ( 57.56) | 15195 |
| 1955 | 118 ( 0.76) | 59 ( 0.38) | 157 ( 1.01) |  | 3483 ( 22.33) | 4606 ( 29.52) | 8229 ( 52.75) | 15601 |
| 1956 | 131 ( 0.81) | 93 ( 0.58) |  |  | 3536 ( 21.93) | 4580 ( 28.41) | 9192 ( 57.01) | 16123 |
| 1957 | 129 ( 0.77) | 118 ( 0.71) |  |  | 3638 ( 21.81) | 5588 ( 33.51) | 11497 ( 68.94) | 16677 |
| 1958 | 153 ( 0.89) | 98 ( 0.57) |  |  | 3457 ( 20.19) | 6896 ( 40.28) | 12847 ( 75.04) | 17120 |
| 1959 | 141 ( 0.80) | 115 ( 0.66) |  |  | 3180 ( 18.15) | 6435 ( 36.73) | 12660 ( 72.25) | 17522 |
| 1960 | 190 ( 1.06) | 112 ( 0.63) |  |  | 3550 ( 19.82) | 7642 ( 42.67) | 14435 ( 80.60) | 17909 |
| 1961 | 185 ( 1.01) | 114 ( 0.62) |  |  | 3772 ( 20.65) | 7863 ( 43.04) | 15456 ( 84.60) | 18269 |
| 1962 | 217 ( 1.17) | 164 ( 0.88) |  |  | 3975 ( 21.37) | 7776 ( 41.81) | 15001 ( 80.65) | 18600 |
| 1963 | 215 ( 1.14) | 151 ( 0.80) |  |  | 4077 ( 21.54) | 8701 ( 45.97) | 16765 ( 88.57) | 18928 |
| 1964 | 218 ( 1.13) | 137 ( 0.71) |  |  | 4394 ( 22.84) | 8399 ( 43.66) | 16649 ( 86.55) | 19237 |
| 1965 | 243 ( 1.23) | 141 ( 0.72) |  |  | 4579 ( 23.27) | 7927 ( 40.28) | 17972 ( 91.32) | 19680 |
| 1966 | 221 ( 1.10) | 142 ( 0.71) |  |  | 5097 ( 25.42) | 7965 ( 39.73) | 20480 ( 102.14) | 20050 |
| 1967 | 282 ( 1.38) | 168 ( 0.82) |  |  | 4587 ( 22.47) | 8179 ( 40.07) | 20264 ( 99.28) | 20410 |
| 1968 | 315 ( 1.52) |  |  |  |  |  |  | 20730 |
| 1969 | 346 ( 1.65) |  |  |  |  |  |  | 21030 |
| 1970 | 433 ( 2.03) |  |  |  |  |  |  | 21320 |
| 1971 | 427 ( 1.98) |  |  |  |  |  |  | 21600 |
| 1972 | 479 ( 2.19) |  |  |  |  |  |  | 21850 |
| 1973 | 474 ( 2.14) |  |  |  |  |  |  | 22130 |

FOOTNOTES:
1. OFFENSES KNOWN, 1954-1973
2. MURDER AND MANSLAUGHTER FROM 1919
3. VITAL STATISTICS
4. ROBBERY AND BURGLARY AFTER 1909
5. BREAKING AND ENTERING BEFORE 1919

```
CENTRAL AFRICAN REPUBLIC *         NUMBER OF OFFENSES REPORTED -- (RATE PER 100,000)
```

| YEAR | MURDER ( ) | MANSLTR ( ) | HOMICIDE ( ) | RAPE (1) | ASSAULT ( ) | ROBBERY ( ) | THEFT ( ) | POP |
|------|-----------|-------------|--------------|----------|-------------|-------------|-----------|-----|
| 1967 | 72 ( 4.80) | | | 4 ( 0.27) | | 196 ( 13.07) | 303 ( 20.20) | 1500 |
| 1968 | 19 ( 1.23) | | | 23 ( 1.49) | | 106 ( 6.88) | 971 ( 63.05) | 1540 |
| 1969 | 66 ( 4.18) | | | 48 ( 3.04) | | 99 ( 6.27) | 459 ( 29.05) | 1580 |
| 1970 | 38 ( 2.42) | | | 27 ( 1.68) | | 126 ( 7.83) | 420 ( 26.09) | 1610 |

FOOTNOTES:
* COEFFICIENT OF OFFENDERS IN 1967; RAW CRIME DATA FROM
INTERPOL. RATES COMPUTED FROM POPULATION FIGURES ABOVE
1. SEX OFFENSES

| YEAR | MURDER ( ) | MANSLTR ( ) | HOMICIDE ( ) | RAPE (1) | ASSAULT ( ) | ROBBERY ( ) | THEFT ( ) | POP |
|------|-----------|-------------|--------------|----------|-------------|-------------|-----------|-----|
| 1967 | 416 ( 12.13) | | | 12 ( 0.35) | | 2104 ( 61.34) | | 3430 |
| 1968 | 452 ( 12.91) | | | 8 ( 0.23) | | 1908 ( 54.51) | | 3500 |

FOOTNOTES:
    * RAW CRIME DATA FROM INTERPOL; RATES COMPUTED FROM
      POPULATION FIGURES ABOVE
    1. SEX OFFENSES

CHILE — CRIME STATISTICS -- (RATE PER 100,000)

| YEAR | MURDER ( ) | MANSLTR ( ) | HOMICIDE ( ) | RAPE ( ) | ASSAULT ( ) | ROBBERY ( ) | THEFT ( ) | POP |
|---|---|---|---|---|---|---|---|---|
| 1900 | | | 855 (29.27) | 290 ( 9.93) | | 2481 ( 84.94) | | 2921 |
| 1901 | | | 1002 (33.78) | 310 ( 10.45) | | 2329 ( 78.52) | | 2966 |
| 1902 | | | 1032 (34.27) | 362 ( 12.02) | | 2475 ( 82.20) | | 3011 |
| 1903 | | | 1068 (34.95) | 331 ( 10.83) | | 2516 ( 82.33) | | 3056 |
| 1904 | | | 1040 (33.54) | 331 ( 10.67) | | 2943 ( 94.90) | | 3101 |
| 1905 | | | 1040 (33.06) | 317 ( 10.08) | | 715 ( 22.73) | | 3146 |
| 1906 | | | 1063 (33.31) | 306 ( 9.59) | | 2308 ( 72.33) | | 3191 |
| 1907 | | | 941 (29.12) | 216 ( 6.69) | | 1798 ( 55.65) | | 3231 |
| 1908 | | | 1177 (38.00) | 365 ( 11.79) | | 1830 ( 59.09) | | 3097 |
| 1909 | | | 1252 (42.25) | 260 ( 8.77) | | 2005 ( 67.67) | | 2963 |
| 1910 | | | 1252 (44.26) | 366 ( 12.94) | | 1576 ( 55.71) | | 2829 |
| 1911 | | | 1246 (46.22) | 284 ( 10.53) | | 1649 ( 61.16) | | 2696 |
| 1912 | | | 1275 (45.26) | 298 ( 10.58) | | 1707 ( 60.60) | | 2817 |
| 1913 | | | 437 (14.87) | 302 ( 10.28) | | 10 ( 0.34) | | 2938 |
| 1914 | | | 668 (21.84) | 274 ( 8.96) | | 2106 ( 68.85) | 4172 ( 136.38) | 3059 |
| 1915 | | | 458 (14.40) | 179 ( 5.63) | | 2743 ( 86.26) | 6278 ( 197.42) | 3180 |
| 1916 | | | 617 (18.69) | 208 ( 6.30) | | 2226 ( 67.43) | 5752 ( 174.25) | 3301 |
| 1917 | | | 398 (11.63) | 206 ( 6.02) | | 2501 ( 73.09) | 7248 ( 211.81) | 3422 |
| 1918 | | | 479 (13.35) | 267 ( 7.54) | | 2865 ( 80.86) | 7535 ( 212.67) | 3543 |
| 1919 | | | 1456 (39.74) | 350 ( 9.55) | | 58 ( 1.58) | 8737 ( 238.46) | 3664 |
| 1920 | | | 1272 (33.61) | 278 ( 7.34) | | 2089 ( 55.19) | 8207 ( 216.83) | 3785 |
| 1921 | | | 1354 (35.23) | 269 ( 7.00) | | 2533 ( 65.91) | 8787 ( 228.65) | 3843 |
| 1922 | | | 1421 (36.43) | 325 ( 8.33) | | 2012 ( 51.58) | 9420 ( 241.48) | 3901 |
| 1923 | | | 1473 (37.21) | 304 ( 7.68) | | 1616 ( 40.82) | 8278 ( 209.09) | 3869 |
| 1924 | | | 1324 (32.96) | 333 ( 8.29) | | 1657 ( 41.28) | 8067 ( 200.82) | 4017 |
| 1925 | | | 1204 (29.56) | 326 ( 8.00) | | 1647 ( 40.44) | 7639 ( 187.55) | 4073 |
| 1926 | | | 2251 (54.49) | 399 ( 9.66) | | 1440 ( 34.86) | | 4131 |
| 1927 | | | 2245 (53.59) | 549 ( 13.11) | | 1668 ( 39.82) | | 4189 |
| 1928 | | | 851 (20.04) | 562 ( 13.23) | | 3723 ( 87.66) | 7481 ( 176.15) | 4247 |
| 1929 | | | 809 (18.79) | 598 ( 13.89) | | 3338 ( 77.54) | 7530 ( 174.91) | 4305 |
| 1930 | | | 143 ( 3.28) | 21 ( 0.48) | | 123 ( 2.82) | 9229 ( 211.43) | 4365 |
| 1931 | | | 22 ( 0.50) | 986 ( 22.25) | | 39 ( 0.88) | 10885 ( 245.60) | 4432 |
| 1932 | | | 2656 (59.04) | 762 ( 16.94) | | 6088 ( 135.32) | 15785 ( 350.86) | 4499 |
| 1933 | | | 2726 (59.70) | 832 ( 18.22) | | 6335 ( 138.74) | | 4566 |
| 1934 | | | 2707 (58.43) | 837 ( 18.07) | | 4887 ( 105.48) | | 4633 |
| 1935 | | | 1047 (22.28) | 682 ( 14.51) | | 9716 ( 206.72) | 20551 ( 437.26) | 4700 |
| 1936 | | | 1134 (23.76) | 640 ( 13.41) | | 9229 ( 193.36) | 18298 ( 404.32) | 4773 |
| 1937 | | | 1109 (22.88) | 615 ( 12.69) | | 9079 ( 187.35) | 19268 ( 397.61) | 4846 |
| 1938 | | | 951 (19.33) | 503 ( 10.23) | | 9312 ( 189.31) | 17064 ( 346.90) | 4919 |
| 1939 | | | 988 (19.79) | 527 ( 10.56) | | 8466 ( 169.59) | 17791 ( 356.39) | 4962 |
| 1940 | | | 1024 (20.23) | 562 ( 11.10) | | 7907 ( 156.17) | 17386 ( 343.39) | 5063 |
| 1941 | | | 1006 (19.52) | 566 ( 10.98) | | 6996 ( 135.74) | 17321 ( 336.07) | 5154 |
| 1942 | | | 1152 (21.97) | 578 ( 11.02) | | 7753 ( 147.85) | 20318 ( 387.45) | 5244 |
| 1943 | | | 987 (18.48) | 671 ( 12.56) | | 8067 ( 151.04) | 19701 ( 368.86) | 5341 |
| 1944 | | | 1069 (19.65) | 577 ( 10.61) | | 7155 ( 131.53) | 17123 ( 314.76) | 5440 |

| YEAR | MURDER ( ) | MANSLTR ( ) | HOMICIDE ( ) | RAPE ( ) | ASSAULT ( ) | ROBBERY ( ) | THEFT ( ) | POP |
|------|-----------|-------------|--------------|----------|-------------|-------------|-----------|-----|
| 1945 | | | 747 (13.48) | 526 ( 9.49) | 5679 ( 102.49) | 16630 ( 300.13) | | 5541 |
| 1946 | | | 848 (15.03) | 501 ( 8.88) | 5318 ( 94.24) | 17548 ( 310.97) | | 5643 |
| 1947 | | | 811 (14.11) | 561 ( 9.76) | 5572 ( 96.84) | 19867 ( 345.63) | | 5748 |
| 1948 | | | 943 (16.11) | 601 ( 10.27) | 5448 ( 93.06) | 19768 ( 337.68) | | 5854 |
| 1949 | | | 978 (16.40) | 615 ( 10.32) | 5000 ( 83.86) | 29859 ( 500.82) | | 5962 |
| 1950 | | | 720 (11.86) | 895 ( 14.74) | 5170 ( 85.13) | 19121 ( 314.85) | | 6073 |
| 1951 | | | 710 (11.48) | 779 ( 12.59) | 4747 ( 76.75) | 20680 ( 334.36) | | 6185 |
| 1952 | | | 2361 (37.48) | 799 ( 12.68) | 3445 ( 54.69) | 19335 ( 306.95) | | 6299 |
| 1953 | | | 696 (10.77) | 877 ( 13.58) | 4483 ( 69.40) | 17952 ( 277.89) | | 6460 |
| 1954 | | | 629 ( 9.50) | 1018 ( 15.38) | 4890 ( 73.87) | 19718 ( 297.85) | | 6620 |
| 1955 | | | 661 ( 9.73) | 995 ( 14.65) | 5548 ( 81.71) | 20510 ( 302.06) | | 6790 |
| 1956 | | | 2087 (29.98) | 902 ( 12.96) | 3388 ( 48.66) | 20810 ( 298.91) | | 6962 |
| 1957 | | | 633 ( 8.87) | 385 ( 5.39) | 4147 ( 58.11) | | | 7137 |
| 1958 | | | 642 ( 8.78) | 1036 ( 14.16) | 5407 ( 73.91) | | | 7316 |
| 1959 | | | 312 ( 4.16) | 518 ( 6.91) | 2414 ( 32.19) | | | 7500 |
| 1960 | | | 554 ( 7.21) | | 5016 ( 65.24) | | | 7689 |
| 1961 | | | 756 ( 9.62) | 926 ( 11.78) | 6080 ( 77.37) | 15129 ( 192.53) | | 7858 |
| 1962 | | | 657 ( 8.18) | 920 ( 11.46) | 5016 ( 62.47) | 14690 ( 182.96) | | 8029 |
| 1963 | | | 651 ( 7.92) | 963 ( 11.72) | 5828 ( 70.93) | | | 8217 |
| 1964 | | | 489 ( 5.76) | 772 ( 9.09) | 5421 ( 63.84) | | | 8492 |
| 1965 | | | 603 ( 6.92) | 1011 ( 11.61) | 6453 ( 74.09) | | | 8710 |
| 1966 | | | 541 ( 6.07) | 893 ( 10.01) | 4021 ( 45.08) | | | 8920 |
| 1967 | | | 640 ( 7.00) | 842 ( 9.21) | 4140 ( 45.30) | | | 9140 |
| 1968 | | | 711 ( 7.60) | 684 ( 7.32) | 4105 ( 43.90) | | | 9350 |
| 1969 | | | 652 ( 6.81) | 542 ( 5.66) | 4450 ( 46.50) | | | 9570 |
| 1970 | | | 587 ( 6.04) | 418 ( 4.30) | 4737 ( 48.73) | | | 9720 |
| 1971 | | | 763 ( 7.72) | 474 ( 4.80) | 4857 ( 49.16) | | | 9880 |
| 1972 | | | 823 ( 8.20) | 542 ( 5.40) | | 6313 ( 62.88) | | 10040 |
| 1973 | | | 710 ( 6.94) | 583 ( 5.70) | | 5958 ( 58.24) | | 10230 |
| 1974 | | | 426 ( 4.08) | 723 ( 6.93) | | 5606 ( 53.75) | | 10430 |

CHINA, REPUBLIC OF (TAIWAN)          CRIME STATISTICS ** (RATE PER 100,000)

| YEAR | MURDER ( ) | MANSLTR ( ) | HOMICIDE ( ) | RAPE ( ) | ASSAULT (1) | ROBBERY (2) | THEFT (3) | POP |
|------|-----------|-------------|--------------|----------|-------------|-------------|-----------|-----|
| 1952 | 553 ( 6.91) | | | | 2534 ( 31.67) | 126 ( 1.57) | 6657 ( 83.21) | 8000 |
| 1953 | 491 ( 5.94) | | | | 3449 ( 41.75) | 182 ( 2.20) | 8688 ( 105.17) | 8261 |
| 1954 | 637 ( 7.39) | | | | 5760 ( 66.84) | 250 ( 2.90) | 10845 ( 125.86) | 8617 |
| 1955 | 942 ( 10.58) | | | | 5865 ( 65.85) | 192 ( 2.16) | 12708 ( 142.67) | 8907 |
| 1956 | 947 ( 10.25) | | | | 6886 ( 74.52) | 317 ( 3.43) | 12782 ( 138.33) | 9240 |
| 1957 | 921 ( 9.69) | | | | 5719 ( 60.16) | 209 ( 2.20) | 12098 ( 127.27) | 9506 |
| 1958 | 1022 ( 10.37) | | | | 6545 ( 66.44) | 226 ( 2.29) | 12516 ( 127.05) | 9851 |
| 1959 | 1199 ( 11.72) | | | | 6616 ( 64.66) | 303 ( 2.96) | 13180 ( 128.81) | 10232 |
| 1960 | 1440 ( 13.57) | | | | 7734 ( 72.88) | 260 ( 2.45) | 13685 ( 128.96) | 10612 |
| 1961 | 1511 ( 13.77) | | | | 8086 ( 73.70) | 337 ( 3.07) | 15549 ( 141.73) | 10971 |
| 1962 | 1556 ( 13.71) | | | | 7827 ( 68.97) | 406 ( 3.58) | 16410 ( 144.59) | 11349 |
| 1963 | 1702 ( 14.55) | | | | 8074 ( 69.03) | 465 ( 3.98) | 18274 ( 156.24) | 11696 |
| 1964 | 1753 ( 14.52) | | | | 8435 ( 69.88) | 319 ( 2.64) | 18659 ( 154.59) | 12070 |
| 1965 | 2042 ( 16.43) | | | | 8927 ( 71.84) | 277 ( 2.23) | 18262 ( 146.95) | 12427 |
| 1966 | 2346 ( 18.34) | | | | 9210 ( 72.04) | 318 ( 2.49) | 17161 ( 134.24) | 12784 |
| 1967 | 2419 ( 18.41) | | | | 9204 ( 70.04) | 313 ( 2.38) | 14101 ( 107.31) | 13141 |
| 1968 | 2469 ( 18.29) | | | | 8763 ( 64.92) | 466 ( 3.45) | 13840 ( 102.53) | 13498 |
| 1969 | 3027 ( 21.85) | | | | 9768 ( 70.50) | 375 ( 2.71) | 15589 ( 112.52) | 13855 |

FOOTNOTES:
1. INJURY
2. PILLAGE AND ROBBERY
3. BURGLARY