THE REMOTE SUBDIVISION IN ARIZONA:
CHARACTERISTICS AND DISTRIBUTION

by

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ABSTRACT

Intensive subdividing of land at specific locations in remote areas of Arizona from the early 1960's to late 1968 has been and still is in the process of greatly altering the natural landscape. These new and almost totally unoccupied subdivisions are confined, with one exception, to privately owned land. These subdivisions can be meaningfully described in relation to two distinctive characteristics, the utility base and the distance to services. The major purpose of this study carrying out the preliminary functions of describing, defining, and locating, revealed important and unanswered questions. These questions must be answered by further research concerning the impact of remote subdivision development on Arizona's future.

CHAPTER I

DIRECTIONAL GUIDELINES

Introduction

Intensive subdividing of land in remote areas of Arizona since the early 1960's has greatly altered the natural landscape (Figure 1). Brock (Hartshorne, 1939, p. 335) states that economic forces are by far the most influential agent in transforming the landscape. However, these economic forces that develop new subdivisions are neglected unduly in current business and economic analysis (Elias and Warren, 1963, foreword).

The only mention of remote subdivisions in the past (with minor exceptions) has occurred sporadically in popular magazine and newspaper articles. Many of these have taken the form of a warning to the public with eye-catching titles such as, "If You're Thinking of Buying Land by Mail" or "Warning: Land Frauds are Flourishing." Also written about in popular sources are those developments that are well managed and well planned. Perhaps the best known land development in Arizona during the late 1960's is Lake Havasu City. Lake Havasu has gained national and world-wide publicity with the announcement of its purchase of the world famous London Bridge.

Figure No. 1

Scars cut across the desert.

Evidence of man altering the natural
landscape north of Kingman, Arizona.

Besides the two extremes of very good or very poor developments there are a vast number of developments that might be termed "average" and as a result they are never written about in magazines and newspapers. This "average" type, in fact, contains the bulk of remote subdivisions to be studied. The existence of this type of subdivision is not generally known about even in Arizona. The general lack of documented articles of any academic discipline concerning remote subdivisions, and the fact that man has altered the natural landscape, stimulated the desire to investigate this phenomena from a geographic viewpoint.

Problem Defined

The problem of evaluating the effects of massive subdividing of land in Arizona, which is not followed by actual use of such land, is hindered by the shortage of documented information. This type of subdividing varies from very small developments to very large developments. This study, however, is limited to only the largest subdivisions in remote areas of Arizona.

The general aim of this study, because of the scarcity of adequate data, is to provide preliminary geographic information only. This information is concerned with defining the characteristics of remote subdivisions and mapping their distribution. This general aim is limited to four specific objectives.

The first purpose is to define descriptively and quantitatively the now loosely used term "remote subdivision" because no

systematic science has yet developed a definition of a remote subdivision. In addition, characteristic features of remote subdivisions will be described that are not necessarily definitive. The second purpose of this study is to accurately map the distribution of all remote subdivisions in the State of Arizona.

All the subdivisions in the study taken en masse are remote but obvious and distinctive differences are present. Therefore, the third purpose of the study is to determine the major factors influencing differentiation suitable for geographic purposes. The distribution of these sub-types was a secondary objective.

The last objective of the study was to compare and generalize the patterns of distribution of both the remote subdivision and their sub-types in order to determine if recognizable patterns occurred in relation to other geographic features.

This study proposes to make no distinction between the well known or the obscure subdivisions. Other factors such as success or failure, purchase price, terms of sale or current value will not be considered. No value judgments are made pertaining to any developers. Questions concerning the type of people who bought or how they acquired the property are not considered in this study.

Information Sources

The one adequate source of information, the one that formed the basis of this study, was the Final Subdivision Public Reports which are verified and signed by the State Real Estate Commissioner. The reports are issued in accordance with the provisions of Title 32,

Chapter 20, Article 4 of the Arizona Revised Statutes, as amended (Real Estate Primer, 1968, p. 12). The first report was dated July 19, 1961, and was used as the start of the study period. The first of October 1968 was used as the cut-off date of the study period and during that time 2413 reports had been issued.

A public report is prepared by the Commissioner for every subdivision of land in Arizona that involves five or more parcels for sale or lease (Real Estate Primer, 1968, p. 13). The reports are for the purpose of preventing fraud, misrepresentation or deceit. The reports are not intended as an approval or disapproval of a subdivision but only reflect the information presented by the subdivider and other information obtained by the Real Estate Department in its investigation and examination of a subdivision. The reports contain information such as the name of the subdivider, location and size of the parcels, title information, utility availability, and distance to schools and shopping (Appendix A).

The commissioner verifies the accuracy of the Public Report information as first reported by the subdivider on the Subdivision Questionnaire by personal examination of the subdivision.

A major limitation of the Public Reports is that there has never been any type of analysis made of the material, even by the Real Estate Department.. Any systematic comparisons of the data had to be done by tedious sorting and listing of the original 2413 reports.

The most important deficiencies of the Public Reports were cases of minor inconsistencies of the reported data. For example,

the location of the majority of subdivisions studied were given by section and township description; these could be accurately located. The remainder of locations were by written descriptions which made exact location more difficult. A minor problem that occurred was the total omission of a class of information, such as the availability of fire protection. In most cases these omissions were corrected by additional information received in response to a letter sent to the developer requesting the needed information.

Besides the Public Reports for raw data, the official files and records of the Real Estate Department of Arizona were examined. The greatest limitation of this data was that there were no copies and the originals could not be taken from the Real Estate Department's office in the State Capitol Building in Phoenix.

The next most important sources of information were extensive field trips to 21 of the 58 remote subdivisions studied.

Besides direct personal examination of the remote subdivisions on the field trips there were many unstructured interviews with local people. These people included subdivision tract salesmen, people living within a subdivision and local real estate people. Personal letters also provided another source of information about remote subdivisions.

The only published material available which was directly concerned with remote subdivisions, with two exceptions, were a few magazine and newspaper articles. None were in a scholarly journal.

CHAPTER II

REMOTE SUBDIVISION DEFINED

The term "remote subdivision" at the present time conveys little, if any, exactness of meaning. The term, or phrases of similar connotation, appear infrequently in any type of published sources. Arizona Public Reports lack a uniform definition concerning a remote area. The method of determining "remoteness" has been subjective and has resulted in a vagueness of meaning. The purpose of this section is to determine the conditions and factors characterizing "remoteness" in relation to a subdivision by descriptive and quantitative information.

Subdivision Defined

Inspection of a histogram showing the number of subdivisions in Arizona according to size during the study period (Figure 2) suggests that most subdivisions are rather small. There is, however a conspicuous group of subdivisions with 500 or more lots. Since many of the smaller subdivisions are not "remote" and resources allow only a limited number of subdivisions to be analyzed this investigation will be limited to only those "larger" subdivisions with 500 or more lots.

Therefore, the term subdivision, for this study, shall refer only to land subdivided, under one developer name, into 500 or more

Figure No. 2

Number of Subdivisions in Arizona According
to Size During the Study Period.

parcels during the study period. The 500 parcels are not qualified by size, shape, zoning, price, street pattern or any other such factor. Cemeteries were not included even though they might have met other specifications. Also, these subdivisions must have had a Public Report verified and signed by the Real Estate Commissioner.

"Remote" Defined

Websters New Collegiate Dictionary defines "remote" by such phrases as, "out of the way, not closely related or connected, removed to, or situated at, a distance." These phrases only convey a general idea that is relative until it is applied to a particular situation. Claude E. Elias, Jr. (Elias and Warren, 1963, p. 7) stated, in The Remote Subdivision, that subdivisions that are remote are in areas where subdivisions are not a natural outgrowth of an existing city (Figure 3). Also, remote areas are characterized by the absence of observable physical signs of commercial, industrial or residential uses (Figure 4).

These areas that remote subdivisions occupy and their associated boundaries are not static in time but rather dynamic. At any time a general relationship exists that as the size of the population unit closest to a remote subdivision increases, the distance from its geographic center to the area of remoteness also increases. Therefore, the boundary defining remoteness varies as the population of urbanized areas, incorporated cities or unincorporated places vary. Urbanized areas such as the Phoenix area are of concern as homogeneous population centers, rather than individual cities.

Figure No. 3--Not a natural outgrowth of an existing city.

Show Low Pines, 12 miles east of Show Low, Arizona, is not a natural outgrowth of an existing city. This subdivision contains 4,240 lots with no home development or utilities.

Figure No. 4--No signs of development.

At the Ranch of the Golden Horse, 17 miles east of Snowflake, Arizona, there is no commercial, industrial or residential development.

Figure No. 3

Not a natural outgrowth of an
existing city.

Figure No. 4

No signs of development.

The uneven distribution of population centers dictates the distribution of areas that remote subdivisions can occupy in Arizona. Arizona's population has an extremely uneven distribution pattern. There are two large centers of population, comparatively close together: the Phoenix urbanized area with a 1960 population of 522,043 and the Tucson urbanized area with a 1960 population of 227,432. The next largest population area in 1960 was Yuma with a population of 23,974 (U.S. Census of Population 1960, Vol. 1, Part 4, pp. 4-9). The areas between Arizona's population centers are vast and allow much space for subdivisions.

General Characteristics

A necessary and characteristic feature of remote subdivisions is that they occupy areas of sparse population, even though the density of the subdivided parcels would indicate the area to be potentially densely populated. Also characteristically, if there is any development at all in a remote subdivision it represents a very small percentage of the total amount of land subdivided. Sometimes the limited amount of development is concentrated in one particular area under the direction of the developer. These areas are termed "core areas" and the definition is discussed in Chapter IV.

Another clue identifying many remote subdivisions (but not defined as a characteristic because of the difficulty of documentation) is that the financial arrangements required to purchase a lot call for the use of an installment sale contract. The contracts usually have low down payments and low monthly payments.

Outside the remote subdivision category, in most cases, are the "New Towns." However, a remote subdivision could be a "New Town." "New Towns" are characterized by such factors as local employment planning and minimum overall area requirements (Helbock, 1968, pp. 243-245). However, such factors are not requirements of a remote subdivision by definition.

A remote subdivision, therefore, for the purposes of this paper is any subdivision of land with 500 or more parcels that are not designed for use as a cemetery. These parcels must have been recorded between 7-19-61 to 10-1-68 under one development name at the State Real Estate Department. Only subdivisions with a published Final Subdivision Public Report are considered. The parcels are not qualified by such factors as size, shape, zoning, or purchase price. These subdivisions are located in areas beyond the natural outgrowth of an existing city or unincorporated place, regardless of its population. These areas are characterized by the absence of commercial, industrial or residential development. Development, directed by the developer, in "core areas" is not considered characteristic because they represent only a very small percentage compared to the entire development. Remote subdivisions are not "New Towns" as defined by Helbock's article.

The Definition Applied

The application of the remote subdivision definition to the 2413 land developments under consideration resulted in the selection of 58 remote subdivisions for special study. Sixty-three subdivisions with 500 or more lots (Figure 2) were recorded during the study period but five subdivisions in the Phoenix and Tucson urban areas did not meet remoteness qualifications. There were no subdivisions located in an area of transition where the natural outgrowth of the population from an established center could have been open to question.

CHAPTER III

THE DISTRIBUTION OF REMOTE SUBDIVISIONS

All remote subdivisions in Arizona regardless of location or size, with one exception discussed later, are developed on privately owned land. The distribution of federally owned land controls the distribution pattern of state and private land. Privately owned also known as patented or deeded land, is directly responsible for controlling remote subdivision distribution (Figure 5).

In other words, land subdividers seeking a site for a new subdivision in a general geographic area must focus their search almost exclusively to privately owned land (the private acquisition of public land is discussed later). Developers may choose a general area in which to subdivide but the specific location is dependent upon the availability on the market of parcels the desired size. If the desired parcels are not on the market and if their owners cannot be persuaded to sell, the developer must continue searching in the preferred area. The location of a remote subdivision is, therefore, generally determined by two factors. The first is the subjective choice by a land developer to choose, for any reason, a general geographic area. The second factor, the specific location, is determined by the private land market. This method of acquiring land results in an unexplainable distribution pattern.

Figure No. 5

The Distribution of Federal Land in Arizona.

The black dots represent the exact locations of the remote subdivisions studied. All shaded areas define Federal lands. The light areas represent the distribution of private land interspersed with state land and other public lands administered by the Bureau of Land Management.

A look at Arizona's distribution of land ownership and the method of transferring publicly owned land to the private sector aids in understanding Arizona's remote subdivision distribution.

Ownership of Arizona Land

Land ownership in the State of Arizona is unevenly divided between the public and private sectors (Table I). Only 15.44% of the land in Arizona has been available for subdividing (with minor exceptions). The remainder is publicly controlled (Arizona Statistical Review, September 1968, p. 34).

A cursory survey of public land distribution in Arizona clearly indicates that private land ownership is concentrated (but interspersed with state lands) principally in a diagonal strip extending from Flagstaff down through Prescott, Phoenix, Casa Grande and Tucson through to Nogales and Douglas; in an east-west band below the Navajo Indian reservation and above the Coconino, Sitgreaves and Apache National Forest around Show Low, Springerville and Holbrook; and in and around Yuma (Arizona Academy, 1965, pp. 40-41).

Private Acquisition of Public Land

The private acquisition of public land can be accomplished either from the federal government through a state agency or directly from the federal or state government (Arizona Academy, 1965, p. 46). State land is sold only when such sales are deemed to be in the best interest of the State of Arizona (52nd Annual Report of the State

TABLE I
ARIZONA LAND OWNERSHIP

	1968 Total Acres ¹	Percent
Federal Government Owned Lands		
All Departments	32,450,401	
Indian Reservation	19,650,323	
Total	52,100,724	71.63
State of Arizona	9,361,935	12.88
Patented	11,225,340	15.44
<hr/>		
Total Land Area of Arizona	72,688,000	100.00

¹State of Arizona, State Land Department. 56th Annual Report of the State Land Commissioner, Phoenix, Arizona, 1968, p. 28.

Land Commissioner, 1964, p. 19). The purchase of land on the east side of Lake Havasu, on the lower Colorado River was an example of private acquisition (Arizona Academy, 1965, p. 46).

Such an acquisition started during 1958 when Robert P. McCulloch (McCulloch Oil Corporation, McCulloch Corporation and McCulloch Properties, Inc.) was searching, from the air, for a fresh water testing site for his firms' outboard motors. He became interested in Site Six, now known as Lake Havasu City, which served as an auxiliary Air Force landing strip and rehabilitation center during World War II. Within three days he purchased 3,530 acres of private property near the site on which his company built a test facility for outboard motors.

Two years later, when McCulloch needed a new site for expansion of his company's extensive manufacturing operations, he visualized the Site Six region as an ideal location for industry and a new city. The only problem was that land in the Site Six area was federally owned and acquiring it involved many complications. About three years later his purchase was made possible through the State of Arizona's acquisition of the property from the Federal Government and its subsequent sale to McCulloch at public auction on August 2, 1963. The land was undeveloped, rough and barren desert with "a commercial classification" and sold for an appraised value of \$75 per acre (52nd Annual Report of the State Land Commissioner, 1964, p. 15).

Blue Water Lagoon was the only remote subdivision located on land not privately owned and in this case the land was owned by the Colorado River Tribes. Indian tribes are now able to make long-term leases under a new Federal Law passed at the instigation of Stewart Udall when he was Secretary of the Interior. The developer of Blue Water Lagoon, John Winter, has a 65 year lease on the site just upstream of Parker, Arizona on the Colorado River (Desert Sun, Vol. 3, No. 3, 1968, p. 9).

Assistant Real Estate Commissioner F. E. Pettycrew stated that leasing land from Indian tribes is becoming more common. Also, the Indians themselves are starting to get into the land development business (Personal interview, 1968).

Geographical Description of Distribution

Generally, the remote subdivisions form a wide Northwest-Southeast alignment through the state (Figure 6) with noticeable voids in the Northeast and Southwest corners of the state. The southern half of the state contains only 12 of the 58 remote subdivisions or about 20%. Forty-two remote subdivisions are located within fifteen miles of recreation areas such as National Forests, National Monuments, National Recreational Areas or the Colorado River. Seven of these forty-two subdivisions are situated on private land enclaves within the boundaries of national forests. Four remote subdivisions are located on the banks of the Colorado River and three others are within two miles.

Figure No. 6

Distribution of Remote Subdivisions.

Most of Arizona's remote subdivisions are concentrated in five major groupings. There are five subdivisions that are not directly associated with any major cluster.

Three of the major groupings are located in an East-West direction transversing North Central Arizona. The Western grouping is located almost exclusively in Mohave County and centers on the town of Kingman and thus the name, the Kingman Group. This group contains two sub-groupings situated North and South of Kingman resulting in the North Kingman and the South Kingman Divisions. A distinguishing characteristic of the South Kingman Division is that seven of the nine subdivisions are located adjacent to or within one mile of the Colorado River. The other two subdivisions are within six miles of U.S. 66, in the Sacramento Valley.

The ten remote subdivisions of the Northern Kingman Division are characterized by the fact that the eastern seven developments are located in the Hualapai Valley. The remaining three developments are located in the Detrital Valley just south of Temple Bar, a small town on Lake Mead. The four southernmost remote subdivisions in this division are located within six miles of U.S. 66. Thus there are six remote subdivisions in the Kingman Group located within six miles of U.S. 66.

Directly east of the Kingman Group in the approximate East-West geographical center of the State is the Mingus Group. The Mingus Group subdivisions are located in either Coconino County or Yavapai County and are centered roughly around the Mingus Mountains.

There is a distinctive grouping of four remote subdivisions near Montezuma National Monument and they are all situated within the Coconino National Forest. Directly north of this group is another remote subdivision within the National Forest boundaries.

The Chino Valley contains seven of the eight western remote subdivisions of the Mingus Group. The five southern subdivisions in the Chino Valley are situated between the eastern and western sections of the Prescott National Forest.

The Mingus Group also contains two subdivisions that are within six miles of U.S. 66.

The last of the three natural groups located in the east-west zone of North Central Arizona is the Snowflake Group. The subdivisions contained in this group are located in the southern half of Navajo County and Apache County and on the northern boundary of Gila County. The Snowflake Group contains two sub-groupings resulting in the North and South Snowflake Divisions.

Three of the five subdivisions located in the Northern Snowflake Division are within three miles of U.S. 66. The Southern Division land developments center on the town of Show Low, Arizona. One of these subdivisions is located within the National Forest boundary, five are extremely close and the seventh is at a distance of approximately fifteen miles.

South of the Mingus Group in South Central Arizona is a small clustering of three subdivisions termed the Golden Corridor Group. The Golden Corridor Group subdivisions are situated in Pinal

County, southeast of Phoenix. These subdivisions flank the major automobile route between Phoenix and Tucson, Arizona's largest population centers.

The last of the major groups is located in the southeastern corner of the state in north central Cochise County and thus the name, Cochise Group. All of these subdivisions are located in the Sulphur Springs Valley within twelve miles of one of the many Coronado National Forest units.

The five subdivisions not included in a major group possess the common characteristic that none are located in a County Census Division with a population density greater than 4.9 persons per square mile. Only three remote subdivisions are located in County Census Divisions with a population density greater than 4.9 persons per square mile (Simon Baker and Thomas J. McCleneghan (eds.), 1966, p. 38).

The location of any remote subdivision studied, regardless of particular details, was the result of a land developer's subjective choice to locate in a general geographic area. The specific location was in most all cases determined by the market system and the distribution of privately owned land. The developer, of course, has the final decision to purchase a tract of land for a development if that parcel meets his requirements and expectations. The locations a developer purchases possess the amenities or a compromise of the amenities the developer was seeking. Therefore, attempting to determine the major factors influencing the development of a subdivision

in a particular location would be speculative. Such speculation may prove valuable, nevertheless, in explaining the location of some remote subdivisions. For example, close proximity to recreation areas such as National Forests or the Colorado River explains the general location of most remote subdivisions. The recreation amenity is the factor emphasized overwhelmingly in the Kaibab Estates advertising brochure.

CHAPTER IV

REMOTE SUBDIVISION DIVERSITY

The diversity of characteristics found in remote subdivisions is obvious to the casual observer. Of interest here, these differences present a challenge to the geographer to classify these subdivisions according to their most common and most characteristic elements.

Remote subdivisions studied herein ranged from those with all the utilities available to those with no utilities. Some subdivisions were closer to schools and shopping than others. Subdivision lots were sold to people by various methods, including newspaper advertisements, or bought on a developer sponsored personal inspection tour of the property. The subdivisions were sold as weekend spas, retirement havens, relocation areas, investment opportunities or for any other assorted purpose that would appeal to prospective buyers. The elements of the physical landscape, such as topography and vegetation types varied from location to location. The number of independent variable factors that produce the differences between remote subdivisions could number in the thousands. The great diversity of remote subdivisions required a finer classification than the general definition provided.

Factors of Differentiation

The problem of designing a classification system required the correct identification of the factors that contributed to the greatest differences between remote subdivisions. The solution was made difficult because of two major considerations. First, the distinguishing characteristics had to be observable by direct field inspection rather than be "hidden factors," which would include such factors as the terms of legal contracts or the deed restrictions. The second consideration centered on the fact that comparable information had to be available for all the remote subdivisions.

The only data source that contained comparable information was the Final Subdivision Public Report, and of the information contained in the Public Reports only two types of data could be observed in the field. These two categories included the number of utilities available and the distance to services. Claude E. Elias, Jr. used these two factors in his article concerned with the economic aspects of remote subdivisions.

Utilities

The total number of utilities provided a straightforward approach to characterizing a remote subdivision. The five utilities chosen were electricity, telephone service, gas, water service and fire protection. These five utilities were a modification of Claude Elias' nine community facilities that included also sewage disposal, road maintenance, school bus availability and public transportation.

Elias used all these community facilities to demonstrate the fact that remote subdivision acreage having these facilities was minor compared to their total acreage (Table II). His information was based on data from public reports of out-of-state subdivisions for eight western states (Elias & Warren, 1963, p. 14).

The four of Elias' community utilities not included in this study were sewage disposal, road maintenance, school bus service and general public transportation. These facilities were not included in characterizing a remote subdivision because the Arizona Public Reports didn't provide enough information to compare the quality of service. For example, sewage disposal was eliminated from consideration because of quality differences resulting from local health departments specification and requirements.

Therefore, the term utilities as used in connection with classifying remote subdivision, for this study, includes the following: underground piped water and natural gas, electricity, telephone, and fire protection. The significance of piped water and piped natural gas, by either public or private suppliers, was that it provided visible evidence of development. Trucked water service and bottled gas service was stated as available to many subdivisions in the Public Reports but these services could be bought by any consumer anywhere, if there was no consideration concerning price. The possibility of comparing trucked water and gas service rates was dismissed after their complexities were understood. For either electricity or telephone service to be considered, as a utility for

TABLE II
COMMUNITY FACILITIES OF REMOTE SUBDIVISIONS
IN 8 STATES^a

(Percentage of Total Acreage Having Specified Facilities)

Facility	Percent of Acreage
Fire protection	5.68
Sewage disposal	.19
Road maintenance	2.79
Water service	2.10
Electricity	7.13
Gas	.95
Telephone service	5.86
School bus available	41.22
Public transportation	13.88

^aThe states are: Arizona, Florida, Hawaii, Idaho, New Mexico, Nevada, Oregon and Utah.

SOURCE: The data are compiled from public reports on out-of-state subdivisions issued by the Los Angeles Office, California Division of Real Estate from 1956 to 1961 (Elias & Warren, 1963, p. 14).

a remote subdivision, they had to be available immediately to the potential consumer. Fire protection was a rather straightforward utility. Generally, it was available or it was not available. If protection was available, in most cases it involved a cost, but that was not considered a factor.

Special exceptions to the general utility base of a subdivision were encountered in special "core areas" reserved for guaranteed immediate building. If a subdivision had concentrated development it was the result of pre-planning by the developer.

Arizona Sunsites in Cochise County has a special building area adjacent to Arizona Route 666. Along the highway a strip of commercially zoned property contains a variety of basic business services. To the west of this commercial property and centered around a small golf course are about 100 small homes. Also in this area was a large community building containing the tract sales office. The total complex of buildings appears impressive in contrast to their barren, natural surroundings. However, this development represents only about 0.3 of one percent of the entire number of lots in the project (Direct field observation, Summer 1968).

The reasons for providing a development core at any subdivision were not of concern. These core areas represent only a small fraction of the total number of parcels in a development and as a result were not considered as a characteristic feature.

Services

The second factor chosen to determine the remote subdivision sub-types was the distance to services. The term services when used in connection to remote subdivisions meant grammar schools, high schools, and general shopping. Elias included the distance to junior high school in his analysis of the distance from remote subdivisions to schools and shopping centers in eight western states. He again was concerned with the percentage of total acreage with that service at specified distances. However, the junior high school distance factor was not used because of the absence of that information on many Arizona Public Reports.

The distance to each service in many subdivisions was different. Therefore, the combined total of all the service distances were used to characterize a remote subdivision.

Most Public Reports gave the distance to the services in miles under the section labeled "miscellaneous." Grammar schools and high schools presented no interpretation problems. The type of shopping, however, posed a semantics problem because of confusion between the terms community shopping and general shopping. Of course, comparisons should be made of shopping facilities with a similar basic range of variety. As stated before, the Public Reports were found to relate similar information but used different terms. Therefore, community shopping and general shopping were considered to contain equal services. Shopping indicated by the term "general store" was not considered adequate in relation to the other types and was never considered a factor.

Sub-type Chart

A Sub-type Chart was the result of plotting the combination of the total distance to services and the total number of utilities available on a two dimensional graph (Figure 7). The Sub-type Chart represents the actual relationship of remote subdivisions in respect to their most distinctive features which were available for classification. The applicable Final Subdivision Public Reports were examined and the pertinent information as defined in the Utilities and Services sections were listed for reference (Appendices C and D).

Sub-type Chart Observations

Preliminary examination of the location of remote subdivisions on the Sub-type Chart revealed a distinctive group of remote subdivisions with no utilities available located 90 or more miles from services. Also, the two remote subdivisions located 130 or more miles from services with two utilities available can be included in this well-defined group. The remainder of remote subdivisions form a compact unit.

All remote subdivisions on the Sub-type Chart taken en masse show a very slight tendency to be generally distributed from the upper-left to the lower-right. This general pattern of distribution seemed a logical arrangement stated simply as follows: the number of utilities decreases as the distance to services increases.

The reason for this general pattern of occurrence seems to be that the distances to utilities and services are likely to be similar,

Figure No. 7

Sub-type Chart

in that utilities are most likely to be found in or near established urban centers. The exception is the utilities found along highways or roads with farmsteads--not common in Arizona.

Distribution Pattern of Remote
Subdivisions: Sub-types

The remote subdivisions located on the periphery of the Sub-type Chart provide the most distinctive and most interesting geographic distributions.

The most distinctive remote subdivisions on the Sub-type Chart are those located 90 miles or more to services. These remote subdivisions could be termed the most remote and least developed. Geographically all of these types are located in Northwestern Arizona. Six of the eight remote subdivisions in that group are clustered just south of Lake Mead in Mohave County. These include Golden Horseshow Ranchos (16)*, Hualapai Valley Estates (22), Joshua Park (24), Mead-O-Rama (33), Mead-O-Rama Rancheros (34), and Sunny Lake Ranches (51). The two remote subdivisions in this group but not in the cluster south of Lake Mead are Desert Skies (12) and Golden Estates (15).

All remote subdivisions in this group were accessible only by roads that were not hard surfaced. These roads were either gravel or graded roads. Some graded roads are not even maintained by the county (Phillips 66 Map of Arizona, 1967 edition). The unpaved road characteristic was unique to this group, and was related to the accessibility of a subdivision by unpaved roads only and not to the condition of the roads within subdivisions.

*Parenthetical numbers refer to map locations, Figure No. 6.

Another group of remote subdivisions, but not as distinctive as the above group, are located in the extreme lower left-hand corner of the Sub-type Chart. These remote subdivisions have no utilities available and are located only a few miles on either side of U.S. 66. These include Lake Mohave Country Club Estates (28), Bridge Canyon Country Estates (7), Kaibab Knolls Estates (25), and Bell Brand Ranches (5). Their specific locations were the result of the developers' acceptance of their advantages, which might have included the appeal of many prospective buyers traveling on U.S. 66. As stated in Chapter Three, all of the three major geographic groupings of remote subdivisions in North Central Arizona had remote subdivisions located in close proximity to U.S. 66. However, only these four remote subdivisions formed a grouping based on their nearness in relation to each other on the Sub-type Chart.

The remote subdivisions located on or near the Colorado River in the Southern Kingman Division form a loosely associated group on the Sub-type Chart.

River Bend (45) and Holiday Highlands (20) are located adjacent to each other geographically and also adjacent to each other on the Sub-type Chart. Both have five utilities available and are located 45.5 and 42 miles from services, respectively. Lake Havasu City (26) has four utilities available and is located 60 miles from services. All three of these remote subdivisions might be described as the most remote and most developed.

Blue Water Lagoon, also located on the Colorado River, has five utilities available and is located 4.5 miles from services. Three

of the four remote subdivisions with five utilities available are located geographically close to each other.

The two remote subdivisions located just north of Blue Water Lagoon are Lake Moovalya Keys (30) and Lake-Side Subdivision (31). They are also located adjacent to each other on the Sub-type Chart. Lake Moovalya Keys and Lake-Side Subdivision both have three utilities available and are located 14 miles from services.

The most distant and least developed remote subdivision within the Colorado River area is Golden Shores (17). Golden Shores has two utilities located 62 miles from services.

Generally, the remote subdivisions in the Southern Kingman Division, near the Colorado River, are located in the lower right-hand corner of the Sub-type Chart.

Almost all of the remote subdivisions studied conformed to a general pattern of uniform utility development regardless of groupings. This pattern of development is a characteristic feature of remote subdivisions.

Pattern of Utility Development

All remote subdivisions regardless of location that have 1, 2, 3 or 4 utilities available show a pattern of remarkable similarity in pattern of development. The addition of utilities without considering distance as a factor, could be generalized as follows: electricity is installed first followed by telephone, piped water and piped natural gas, respectively. Only seven of the fifty-eight remote subdivisions, or 12% do not conform to this pattern (Appendix C).

Three of the seven subdivisions that did not conform to the general pattern of utility development had exceptions which occurred in the four utility class. As generalized above, normally natural gas would be the fourth utility developed. However, of the fourth utility class, three of the eight subdivisions did not have natural gas as the fourth utility. It is interesting that the five that have natural gas all are located adjacent to or on land that had a trunk or subsidiary pipe line of the El Paso Natural Gas Company passing through the subdivision (Personal inspection of El Paso Natural Gas Company Map, Tucson Office, December 20, 1968).

Two other exceptions of uniform development occurred in the three-utility class or the water development stage. In these exceptions, natural gas was developed rather than water, as would be expected. These two exceptions are also located near or on natural gas pipe lines.

The sixth and seventh exceptions of uniform development of utilities appears to have no recognizable pattern. The sixth

exception was the Bell Brand Ranches which had available fire protection but not electrical service as would be expected. The last exception was water development rather than telephone service at Golden Shores.

The majority of exceptions to a uniform progression of utility development tend to be related to the distribution of natural gas pipe lines.

CHAPTER V

CONCLUSION

A remote subdivision for purposes of this study was characterized by the subdivision of land into 500 or more parcels located in such areas that the subdivision is not a natural outgrowth of an existing population unit. These areas were characterized by the absence of commercial, industrial or residential uses.

The application of the remote subdivision definition to all subdivisions in Arizona during the study period resulted in isolating 58 remote subdivisions. All remote subdivisions, except one, were developed on privately owned land. Therefore, the distribution of privately owned land determines the distribution of remote subdivisions. These remote subdivisions were grouped in five major clusters in Arizona.

The majority of remote subdivisions are located in close proximity to recreation areas, such as, National Forests or the Colorado River. The specific location of these subdivisions were determined by the market system while the general geographic area was the result of the land developers' subjective choice.

The great diversity of these remote subdivisions provided the opportunity to develop a sub-type classification based on their most common and most characteristic elements. The elements included the total distance to services and the total number of utilities

available. These two major factors of differentiation were a modification of Claude E. Elias, Jr. criteria that he used to study the economic aspects of remote subdivision sales promotion. These two major factors of documented differentiation were plotted on a two-dimensional graph. Analysis of the resulting distribution of remote subdivisions on the Sub-type Chart revealed one very distinctive group. All these remote subdivisions were located in Northwestern Arizona and could be termed the most remote and least developed. Also, the general characteristic was revealed that approximately 88% of the remote subdivisions had a similar pattern of utility development. Most exceptions to this trend were related to distribution of natural gas pipe lines.

This study has provided basic data that could form the basis for future research concerning remote subdivision problems. For example, could remote subdivisions become a more prominent feature of the landscape based on the fact that subdividing land is a very lucrative business? Today large and small development companies can offer a rancher or other private owner a "good price" for their property. What might be third or fourth class range land possibly could become first class subdivision land. Could the economics of this situation be a source of danger to Arizona's ranching economy in the future?

All developers, large or small, taken collectively, are part of a dynamic industry. New capital, outside of the industry itself, is being constantly diverted to what some believe is the best

potential investment today, real estate. Acre by acre Arizona's precious privately owned land is being subdivided into "homesites" at a rapid rate even though these homesites are not being occupied. Could this situation be considered a form of "landscape pollution"?

The continual development of remote subdivisions appears capable of maintaining the status quo of remote subdivisions landscapes in the future unless Arizona experiences an unlikely de-centralized population explosion. One reason for the status quo condition could be based on sheer numbers. Consider the possibility that half of the privately owned land in Arizona in 1968 was subdivided with only four lots (50'x100') to the acre. These lots would occupy only about one-half of an acre and could permit the development of schools, roads, shopping centers or any other public use on the other half. The current 15% of privately owned land in Arizona, could have a population in excess of 175,000,000. Of course this is an extreme example, but it gives perspective to the problem of ever finding sufficient people to fill all these remote subdivisions. Even if one of the large subdivisions in Arizona today were fully developed and occupied by four persons to a lot it probably would become the third largest city in Arizona.

Lake Havasu City with its dynamic leadership and the impressive execution of a master plan could in the near future develop into, if not the third largest city, at least a major population center in Arizona. If this situation proves to be correct, a hypothetical question of great importance arises: at what point does a remote

subdivision cease being a remote subdivision and become a point of reference for other newly created remote subdivisions? Perhaps that will be apparent when Lake Havasu City is listed as the service center on Public Reports for newly developed remote subdivisions.

The above paragraphs have presented only a few of the innumerable problems related to the remote subdivisions today. The future will uncover other problems created by dividing up the land into thousands of small parcels owned by as many different absentee owners located all across the United States.

APPENDIX A
SAMPLE OF A FINAL SUBDIVISION
PUBLIC REPORT

CAPITOL BUILDING
Phoenix, Arizona

STATE OF ARIZONA
State Real Estate Department

J. FRED TALLEY, Commissioner

TUCSON OFFICE:
State Office Building
Tucson, Arizona

**FINAL
SUBDIVISION PUBLIC REPORT**

on

PARK SHAW LOW UNIT ONE
A SUBDIVISION OF PART
OF SECTION 1, TOWNSHIP 10
NORTH, RANGE 24 EAST
APACHE COUNTY, ARIZONA
REFERENCE NO. 772

**THIS REPORT IS NOT A RECOMMENDATION OR ENDORSEMENT OF THE
SUBDIVISION BUT IS INFORMATIVE ONLY.**

BUYER OR LESSEE MUST SIGN THAT HE HAS RECEIVED AND READ THIS REPORT.

This Report Is Not an Approval or Disapproval of This Subdivision

It reflects information presented by the subdivider of the above subject tract and other information obtained by the Real Estate Department in its investigation and examination of said tract. This report is issued in accordance with the provisions of Title 32, Chapter 20, Article 4 of the Arizona Revised Statutes, as Amended.

Subdivision reports are issued by the Real Estate Commissioner on subdivisions for the purpose of preventing fraud, misrepresentation or deceit. The Real Estate Commissioner does not regulate or govern the size of parcels, drainage, sanitation, water and the physical aspects of subdivisions. All such matters are regulated and passed on by the local public bodies and officials.

SPECIAL NOTE

PRUDENCE DICTATES THAT PRIOR TO THE PURCHASE OF ANY REAL PROPERTY, THE PURCHASER SHOULD MAKE A PERSONAL INSPECTION OF THE LAND TO BE PURCHASED TO ASCERTAIN FOR HIMSELF THAT THE REPRESENTATIONS MADE ARE AS HE ASSUMED THEY WOULD BE AND THAT THE PROPERTY MEETS HIS REQUIREMENTS AND EXPECTATIONS.

NEGLECTING THESE PERSONAL ASSURANCES, THE PURCHASER MUST ASSUME THAT HE IS POSSIBLY EXPOSING HIMSELF TO AN ELEMENT OF RISK BY HIS OWN VOLITION.

WATER: THIS DEPARTMENT HAS NO INFORMATION AS TO THE AVAILABILITY OF WATER IN THIS AREA, THE COST OF DEVELOPING SUCH WATER, OR THE POTABILITY OR QUANTITY OF WATER, IF FOUND. PROSPECTIVE PURCHASERS SHOULD SATISFY THEMSELVES AS TO THE COST OF DEVELOPING SUCH WATER.

SEWERS: NO SEWAGE DISPOSAL SYSTEM HAS BEEN PLANNED FOR THIS SUBDIVISION.

GARBAGE AND TRASH REMOVAL SHALL BE THE OBLIGATION OF THE INDIVIDUAL LOT OWNER.

FIRE PROTECTION: THERE IS NO FIRE PROTECTION FOR THIS SUBDIVISION.

DATE OF THIS REPORT: July 15, 1963.

SUBDIVIDER: PHOENIX TITLE AND TRUST COMPANY, as TRUSTEE for BRISKWAY DEVELOPMENT CO., 5133 NORTH CENTRAL AVENUE, PHOENIX, ARIZONA.

LOCATION AND SIZE: Subdivision is located approximately 17 miles east of Show Low, Arizona, and one mile north of Highway 60.

Approximately 562 acres divided into 405 lots or parcels.

TOPOGRAPHY: Subdivision is located in an area that is level to rolling and some portions hilly with growth and vegetation consisting of scrub growth, cedar and pine.

PROPERTY BOUNDARY LINES: Subdivider advises lots or parcels will be four cornered staked.

RESTRICTIONS AND OTHER MATTERS OF RECORD: Conditions, reservations and restrictions that may run with the land including City or County zoning restrictions should be investigated by the Purchaser. Copies of those items which are recorded may be inspected at the office of the Apache County Recorder.

TITLE EXCERPTS: "EXCEPT one-half of all oil, gas and mineral rights, as reserved by Ira Crawford and Edah Crawford, his wife, in Deed dated March 3, 1960, recorded September 23, 1960 in Book 40 of Official Records, pages 586-587.

The rights of Santa Fe Pacific Railroad Company, a corporation, or its successors or assigns, or the Atchison, Topeka and Santa Fe Railway Company, or its successors or assigns, or any Railroad Company at least a majority of whose stock it owns, to appropriate rights of way and rights incident thereto, incident to the operations of railways, as reserved in Deed from Santa Fe Pacific Company, to Jessie H. Perkins, dated January 18, 1928, recorded April 10, 1928 in Book 20 of Deeds, pages 382-384.

Reservations as contained in Deed from Santa Fe Pacific Railroad Company, a corporation, to Jessie H. Perkins, dated January 18, 1928, recorded April 10, 1928 in Book 20 of Deeds, pages 382-384.

The right to explore, for, mine and remove one-half of all oil, gas and minerals, as reserved in Deed recorded in Book 40 of Official Records, pages 586-587."

Prospective purchasers should satisfy themselves as to what effect, if any, these reservations may have on the use of the land.

STREETS: Subdivider has advised that streets have been offered for dedication for public use, and that streets in this subdivision will be bladed and graded, cost to be borne by the subdivider. Subdivider further advises that the streets will be maintained by the subdivider.

WATER: There is no regular water service to this subdivision. This Department has no information as to the availability of water in this area, the cost of developing such water, or the potability or quantity of water, if found. Prospective purchasers should satisfy themselves as to the cost of developing such water.

CONTRACTS OF SALE: Sales may be made on contracts of sale. Prospective purchasers should read and understand the terms of these contracts before signing them.

UTILITIES: Subdivider advises that utilities such as Electricity, Gas and Telephone are not available to this subdivision at this time. Prospective purchasers should determine what utility companies serve that area and investigate their extension rules and regulations, service connections, and the costs involved.

SEWAGE DISPOSAL: Arizona State Department of Health advises that septic tanks are to be used for sewage disposal. Prior to installation, purchasers should contact the local Health Department for specifications and requirements. Prospective purchasers should satisfy themselves as to the cost of installing Septic Tanks and Percolation Pits.

FIRE PROTECTION: Subdivider advises that there is no fire protection for this subdivision.

MISCELLANEOUS: The subdivider advises it is approximately 10 miles to the Grammar School at Vernon, Arizona, and 32 miles to the High School at Springerville, Arizona, and that school bus service is not available to Grammar School, but is available to High School at Springerville from Vernon, a distance of 10 miles.

Note: Purchasers should contact the local school board regarding school facilities and bus service.

PUBLIC TRANSPORTATION AND SHOPPING FACILITIES: Subdivider advises that there is public transportation available approximately one mile from subdivision, and that the nearest community shopping center is approximately 18 miles from the subdivision at Show Low, Arizona.

SPECIAL NOTE

THIS DEPARTMENT ALWAYS RECOMMENDS THAT YOU SEE BEFORE BUYING.

J. FRED TALLEY
STATE REAL ESTATE COMMISSIONER

JFT:JP:s
REF: NO. 772

APPENDIX B
ALPHABETICAL LIST OF REMOTE SUBDIVISIONS,
AND SELECTED PUBLIC REPORT DATA

Alphabetical List of Remote Subdivisions, and Selected Public
Report Data^A

Map Location No.	Name	Public Report No.	No. of Acres ^B	No. of Lots ^B
1	Antelope Lakes	310	320	1,189
2	Arizona City	840	699	1,395
3	Arizona Park Estates	735	5,093	2,190
4	Arizona Sunsites	325	76,500 ^C	44,279 ^D
5	Bell Brand Ranches	3,000	2,393	2,559
6	Blue Water Lagoon	2,007	120	571
7	Bridge Canyon Country Estates	3,234	4,716	2,324
8	Car Da Li Estates	1,011	1,071	1,833
9	Cochise College Park	1,643	590	1,715
10	Cochise Recreation Area	925	420	871
11	Desert Carmel	3,204	1,502	2,629
12	Desert Skies	464	1,280	568
13	Diamond Valley	954	370	887
14	Forest Lake Estates	1,686	638	536
15	Golden Estates	319	4,160	1,664
16	Golden Horseshoe Ranchos	206	4,524	4,153
17	Golden Shores	306	720	2,029
18	Grand Canyon Subdivision	573	4,572	3,099
19	Haviland Ranch Estates	1,242	640	505
20	Holiday Highlands	1,662	218	670
21	Holiday Lake Estates	5	320	1,543
22	Hualapai Valley Estates	27	640	512
23	Indian Lakes	3,135	465	767
24	Joshua Park	68	640	579
25	Kaibab Knolls Estates	1,910	7,993	2,587 ^E
26	Lake Havasu City	1,582	16,640 ^E	17,863 ^E
27	Lake Mead Rancheros	179	8,667	7,528
28	Lake Mohave Country Club Estates	792	1,037	1,098
29	Lake Montezuma	3,244	224	722
30	Lake Moovalya Keys	2,007	120	571
31	Lake-Side Subdivision	592	16,520	28,000
32	La Playa Estates	770	639	932
33	Mead-O-Rama	46	1,620	1,307
34	Mead-O-Rama Rancheros	3,031	1,280	947

35	Montezuma Park	277	164	542
36	New Kingman Addition	926	816 ^C	5,003 ^D
37	New Tucson	1,148	6,500 ^C	11,520 ^D
38	Park Show Low	772	1,842	1,325
39	Petrified Forest Estates	1,790	960	670
40	Pinetop Country Club	1,944	160	753
41	Pinewood Subdivision	3,034	235	869
42	Prescott Valley	3,067	615	2,488
43	Ranch of the Golden Horse	494	5,100	3,451
44	Realsite Arizona Ranchetts	181	4,578	3,971
45	River Bend	836	227	1,503
46	Show Low Paradise	1,357	800	640
47	Show Low Pines	74	5,830	4,240
48	Snowflake Highlands	1,531	2,215	997
49	Sun Country Acres	158	640	576
50	Sunizona Acres	333	2,210	889
51	Sunny Lake Ranches	201	640	582
52	Toltec	640	3,151	8,101
53	Vein of Gold	747	274 ^C	688 ^D
54	Whispering Ranch	1,493	3,840 ^C	19,200 ^D
55	White Mountain Lakes	1,056	1,164	1,968
56	Wickiup Mesa	1,276	316	1,100
57	Winchester Ranch Estates	1,237	2,240	804
58	Witch Well Ranches	140	10,880	736

^AAll data listed on Appendix B was obtained from Arizona Public Reports as indicated unless otherwise stated.

^BObtained from official Logs #1, #2 and #3, Arizona State Real Estate Office, State Capitol Building, Phoenix, Arizona. Totals determined from all pertinent entries.

^CEstimated from information obtained from Customer Service Department, Horizon Corporation, Tucson, Arizona, December, 1968.

^DObtained from Customer Service Department, Horizon Corporation, Tucson, Arizona, December, 1968.

^ETri-County Engineering Corporation of Arizona, Lake Havasu City Statistical Data-Month of September, 1968 (unpublished), Lake Havasu City, Arizona, October 8, 1968.

APPENDIX C

AVAILABILITY OF UTILITIES IN REMOTE SUBDIVISIONS

Availability of Utilities in Remote Subdivisions^A

Listed in sequence of number available

Map Location No.	Electricity	Telephone	Water	Gas	Fire Protec- tion
25					
7					
54					
3					
12					
14					
15					
16					
21					
22					
34					
38					
43					
44					
46					
47					
51					
27					
58					
5					Yes
19	Yes				
49	Yes				
57	Yes				
28	Yes		Yes		
24	Yes	Yes			
18	Yes	Yes			
39	Yes	Yes			
33	Yes	Yes			
17	Yes		Yes		
10	Yes	Yes	Yes		
8	Yes	Yes	Yes		
29	Yes	Yes	Yes		
31	Yes	Yes	Yes		
36	Yes	Yes	Yes		
30	Yes	Yes	Yes		

13	Yes	Yes	Yes		
56	Yes	Yes	Yes		
50	Yes	Yes		Yes	
55	Yes	Yes	Yes		
23	Yes	Yes	Yes		
53	Yes	Yes	Yes		
35	Yes	Yes	Yes		
37	Yes	Yes	Yes	Yes ^B	
41	Yes	Yes	Yes		
32	Yes	Yes	Yes		
4	Yes	Yes	Yes		
9	Yes	Yes	Yes	Yes	
40	Yes	Yes	Yes		Yes
11	Yes	Yes	Yes	Yes	
42	Yes	Yes	Yes		Yes
52	Yes	Yes	Yes	Yes	
48	Yes	Yes	Yes	Yes	
1	Yes	Yes	Yes	Yes	
26	Yes	Yes	Yes		Yes
6	Yes	Yes	Yes	Yes	Yes
2	Yes	Yes	Yes	Yes	Yes
20	Yes	Yes	Yes	Yes	Yes
45	Yes	Yes	Yes	Yes	Yes

^A All information, unless noted, was obtained from Public Reports. See Appendix B.

^B Not stated in the Public Report, but estimated for this table.

APPENDIX D
INDIVIDUAL DISTANCES TO SERVICES AND GROUP TOTALS

Individual Distances to Services and Group Totals^A

Map Location No.	Distance to Grammar School	Distance to High School	Distance to Shopping	Combined Total Distance
34	62	62	62	186
16	50	50	50	150
33	37	60	37	134
15	44	44	44	132
24	35	60	35	130
51	30	60	35	125
22	35	35	35	105
12	20	35	35	90
14	16	49	15	80
58	25	25	25	75
27	31	31	12	74
44	31	31	12	74
3	24	24	24	72
18	31	31	6.5	67.5
4	10	28	28	66
17	5.5	51	5.5	62
39	15	27	20	62
26	0	60	0	62
38	10	32	18	60
57	18	18	18	54
46	10	22	22	54
47	15	25	12	52
19	9	33	9	51
43	17	17	17	51
21	10	30	10	50
1	11.5	26	11	48.5
45	4.5	36.5	4.5	45.5
49	2.5	37	3	42.5
1	11.5	26	11	48.5
45	4.5	36.5	4.5	45.5
49	2.5	37	3	42.5
20	4	35	3	42
57	10	25	6	41
41	18	18	1	37
48	13	13	10	36
37	11	22	1.5	34.5
35	15	15	3	33

32	0.5	16	16	32.5
7	10	10	10	30
55	9	12	8.5	29.5
50	0.5	14	14	28.5
25	9	9	9	27
42	6	9	9	24
11	8	8	8	24
53	8	8	8	24
40	8.5	8.5	5	22
23	5	12	5	22
52	2	14	6	22
9	6.5	6.5	6.5	19.5
2	4.5	11	0	15.5
13	5	5	5	15
36	4	7	4	15
30	5	5	5	15
29	1	10	3	14
31	5	5	4	14
56	1.5	8	3	12.5
28	1.5	3	2.5	7
10	2	2	2	6
6	2	2	0.5	4.5
8	1	1	1 ^B	3

^AAll information, unless noted, was obtained from Arizona Public Reports. See Appendix B.

^BNot stated in Public Report but estimated for this table.

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