

In serving this market U S WEST has developed special voice messaging services to serve various niche segments of customers which a Service Bureau would be unlikely to choose to serve.

- Rural and low income areas: U S WEST provides Voice Messaging Services in a large number of rural areas and in areas in which low income groups are predominant. See **Appendix 1: Maps of U S WEST Voice Messaging Service Customers.**
- Minority Oriented Products: Customers in Albuquerque and Santa Fe can buy Spanish voice at no extra charge. The service will be extended to Arizona in May 1995
- Parent Teacher Link: U S WEST has developed a voice messaging system for use in schools. Schools are provided with mailboxes for use by each of their teachers. They can leave messages about matters such as homework, athletic events or cafeteria menus. They can also broadcast messages to selected groups of parents or individual ones if they subscribe to the service. Parents can call in and check the public messages or leave messages for the teacher. This service has generated a very enthusiastic response among both Parents and Teachers alike. Transcripts of focus groups held with teachers and parents are included in **Appendix II: Transcript of Parent Teacher Link Focus Group.** Similar services are available for other groups such as youth activity groups and charities.

TABLE III.2: FOCUS GROUP RESPONSES TO PARENT TEACHER LINK

GROUP	EXAMPLE RESPONSES	TRANSCRIPT REFERENCE ¹
Parents	<ul style="list-style-type: none"> • I get a call daily from [teacher]. She lets us know what the class is doing, for a particular class. 	5.20
	<ul style="list-style-type: none"> • It is good to know for sure what they have to do that night for homework. If it is a project that they have, even for week, then I want to know about it. 	5.1
	<ul style="list-style-type: none"> • They had assignment tests today and Jennie did not tell me; you know, it is one of those things that escapes the mind. I would not have heard that message; I would not have known she had to study for it 	3.49
	<ul style="list-style-type: none"> • I think it helps; it is feed back for them and you are more likely to communicate a small message that you do not want to bother to send [by mail] 	8.7
	<ul style="list-style-type: none"> • There is so many walls thrown up between parents and teachers and this is one way to break them down. 	13.32
	<ul style="list-style-type: none"> • [US West] have a good tool that the schools should use 	15.6
	<ul style="list-style-type: none"> • This is something that you can do quickly. You do not have to necessarily see the person face to face and it also saves the teacher time. 	17.44

¹See Appendix II: Transcript of Parent Teacher Link Focus Group

TABLE III.2 (CONTINUED): FOCUS GROUP RESPONSES TO PARENT TEACHER LINK

GROUP	EXAMPLE RESPONSES	TRANSCRIPT REFERENCE ¹
Teachers	<ul style="list-style-type: none"> • I do a lot of communicating as far as one on one, sending messages back 	8.16
	<ul style="list-style-type: none"> • If you are communicating with the parents that makes your job easier and it benefits the children as well as the parents 	12.12
	<ul style="list-style-type: none"> • It...keeps me organized too, in the sense that I have to put everything on once per week, so I have to have myself very well planned out. 	12.20
	<ul style="list-style-type: none"> • I like the fact that you can use it at any time. You are not going to waste time. I can do it at 10.30 or 11.30 at night. I do not need to wake them up and [I can] still leave that message 	12.34
	<ul style="list-style-type: none"> • Parents feel more comfortable sending me a message later in the evening 	12.42
	<ul style="list-style-type: none"> • I do not call parents as often or as quickly if they do not have voice messaging 	13.13
	<ul style="list-style-type: none"> • I have a lot of very intense parents, very concerned parents and....communication is the best line. It helps everybody 	13.45
	<ul style="list-style-type: none"> • It is an efficient way to communicate 	13.27
	<ul style="list-style-type: none"> • The big picture is that it was a great idea 	14.29

¹ See *Appendix II: Transcript of Parent Teacher Link Focus Group*

Articles from the local press about the plan are presented in **Appendix III: News Articles about Parent Teacher Link**. The service was also commended in a news spot on Phoenix Channel 10 News. The transcript of this is presented in **Exhibit III.6: Transcript of News Spot on Parent Teacher Link**

EXHIBIT III.6: TRANSCRIPT OF NEWS SPOT ON PARENT TEACHER LINK

You wonder whether your child tells the truth when you ask him if there is homework tonight and he says, no.

Frustrated you can't reach a teacher to answer a simple question?

US WEST hopes they have the answer.

A cutting edge voice mail system is now in three schools and blaming the family dog for chewing up an assignment just became obsolete.

This is Nancy Gunty, seventh grade science class at Saint Thomas the Apostle Catholic school. She hopes her students are paying attention; but just in case, (telephone sound).

Hi, this is Mrs. Gunty from Saint Thomas, and this is the assignment for seventh grade science for the week of January 23rd.

(Parent listening). Today in science we studied stars, the different characteristics of stars and how they are formed. For homework tonight, the student need to do exhibition M19.

Before Core Bellan even gets home from school, her mother hears her teacher's voice message: "Thanks Mrs. Gunty; we will talk to you soon about Cory's progress in science".

Tell me what you like about this voice mailing system. What I like about it is that it fosters so much communication between parent and teacher and the school. A lot of times I will dial in with a simple question that needs to be answer but that I would not dream of disturbing a teacher at night, after, her kids are in bed and she needs quiet time. I can do it at my convenience and then she message me back, which is great because she does not interrupt that I am doing. So, you can always plan a conference for something that is very important; but just for the everyday, it is great!

So, some day we are all going to be connected to each other through Voice Mail.

That is our hope; that is our hope and more customers would be using Voice Mail. It is really the way of the future and how we are going to communicate.

And we heard our own future through Saint Thomas' principal's Voice mail message: There will be a special presentation on the channel ten news, this evening at 10:00 o'clock. The presentation will be done by June Thomsen, one of the news casters for Channel 10 who visited our school today.

IV. ENHANCED FAX SERVICES

IV. Enhanced Fax Services

IV.1. The Enhanced Fax Services Market

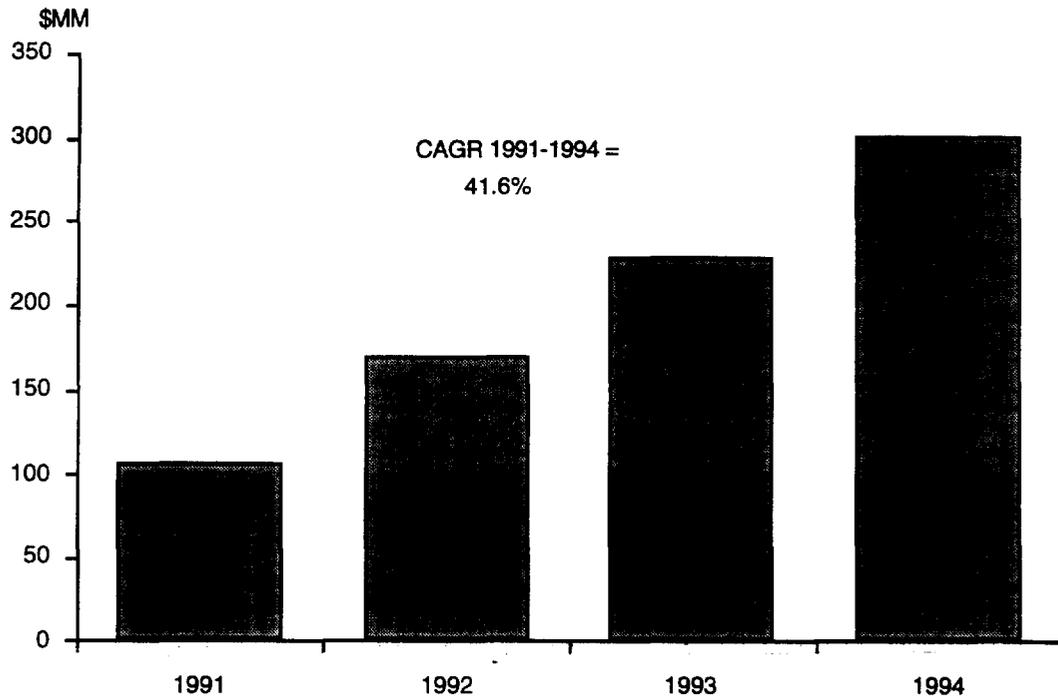
The Enhanced Fax Services Market is still relatively small but growing very rapidly. RBOCs have participated in this market since 1990 and their involvement has not impeded the market's growth.

The market for Enhanced Fax services is still fairly small but growing rapidly. It breaks into four main application areas:

- Fax Broadcast: this service enables a user to send one fax to multiple recipients without having to resend the fax each time. The systems generally establish directories of destination fax numbers which the user can select or modify.
- Fax Retrieval: this service, otherwise known as fax-on-demand or fax-response allows a user to telephone into an organization and, by using a series of voice prompts, select a file, which could include brochures, announcements or other information. This file will then be faxed to the number designated by the user.
- Fax Mailbox: this service enables a user to receive a fax at a mailbox where it is stored until the user accesses the box remotely using a password, and instructs the system to send the fax to the nearest fax machine. This preserves confidentiality and enables the user to receive a fax anywhere without having to give out the number of a specific fax machine.
- Fax Overflow: this service is also known as never-busy-fax. When a user's machine is busy, incoming faxes are diverted to a storage location and forwarded when the fax machine becomes available.

In combination, these services represented a market of \$106MM in 1991 and \$300MM in 1994 which reflects an annual growth of 42%.

EXHIBIT IV.1: ENHANCED FAX SERVICE REVENUES



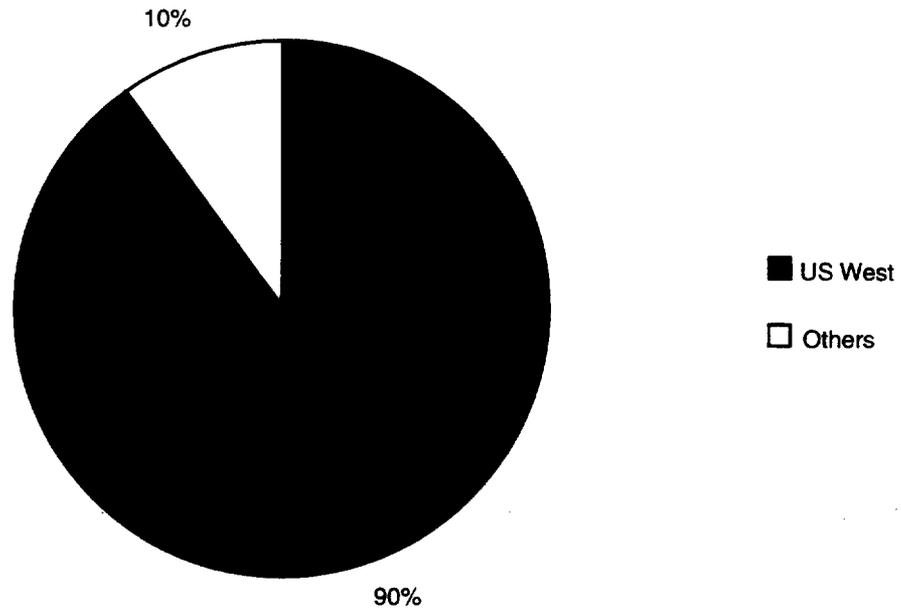
Source: Marketfinders

IV.2. Promotion and Awareness of Enhanced Fax Services

RBOCs have spent more than any other segment of provider on promotion of Enhanced Fax Services. This has increased public awareness of the category, even though it was not very effective at increasing brand specific awareness of U S WEST's own service.

The RBOCs have played a significant role in this market by increasing public awareness. When most of the RBOCs entered the market they spent significant sums on advertising and direct mail promotions. They were the only significant segment of provider to do so. U S WEST, for example, spent \$2-3MM and used newspaper ads, radio ads, direct mail and telemarketing to promote the service towards business travelers and people who require confidentiality for documents (eg lawyers).

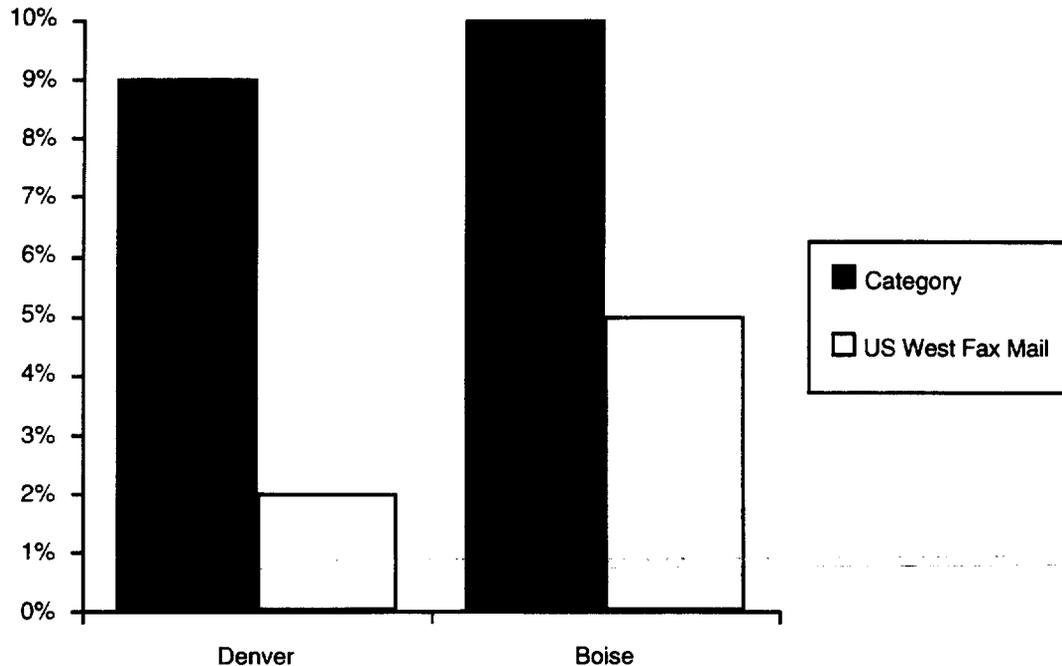
**EXHIBIT IV.2: RELATIVE PROMOTIONAL SPEND FOR ENHANCED FAX SERVICES
(U S WEST TERRITORY)**



Source: Marketfinders Estimate, U S WEST

This spending increased awareness of the Enhanced Fax Services sector, but it was much less effective at promoting awareness of RBOC brands specifically. For example, U S WEST conducted tests in its territory after the promotions for Enhanced Fax Services. It found that awareness for its own branded service was typically less than half the awareness of the sector as a whole. In this respect, the presence of the RBOCs has clearly benefited the market place; their investment in marketing for their own products served to raise the profile of the whole sector, and Service Bureaus and IXC's were able to free-ride on the back of the efforts of the RBOCs.

**EXHIBIT IV.3: UNAIDED AWARENESS OF ENHANCED FAX PRODUCTS
(U S WEST TERRITORY, 1992)**



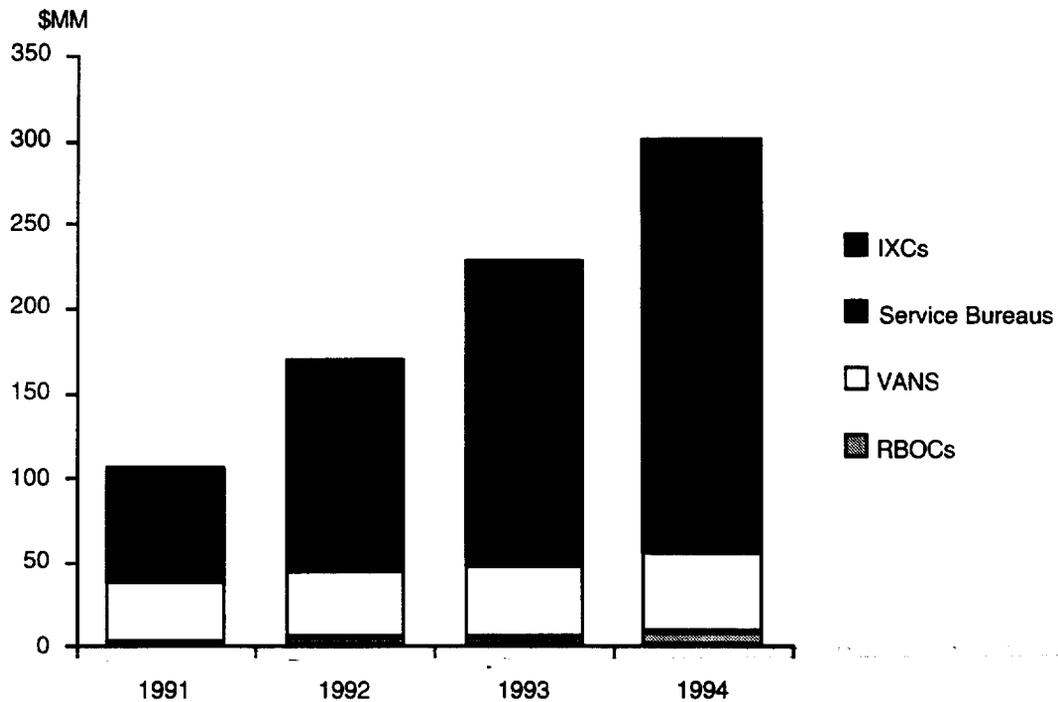
Source: U S WEST Strategic Marketing

IV.3. Performance by Provider Segment

The Enhanced Fax Services segment is dominated by independent Service Bureaus. The IXC's have also been relatively successful, despite higher prices and little sales effort. The RBOCs have not been successful and several have exited the market. This example of RBOC failure underlines the competitive nature of the Enhanced Services retail market. Clearly the RBOCs lacked either the desire, or the ability, or both to influence the development of this market.

This segment is still dominated by the Service Bureaus. The IXCs have made some progress in penetrating the segment, either through separate services or via their VANS networks, but the RBOCs have been very unsuccessful.

EXHIBIT IV.4: ENHANCED FAX SERVICE REVENUES BY PROVIDER TYPE



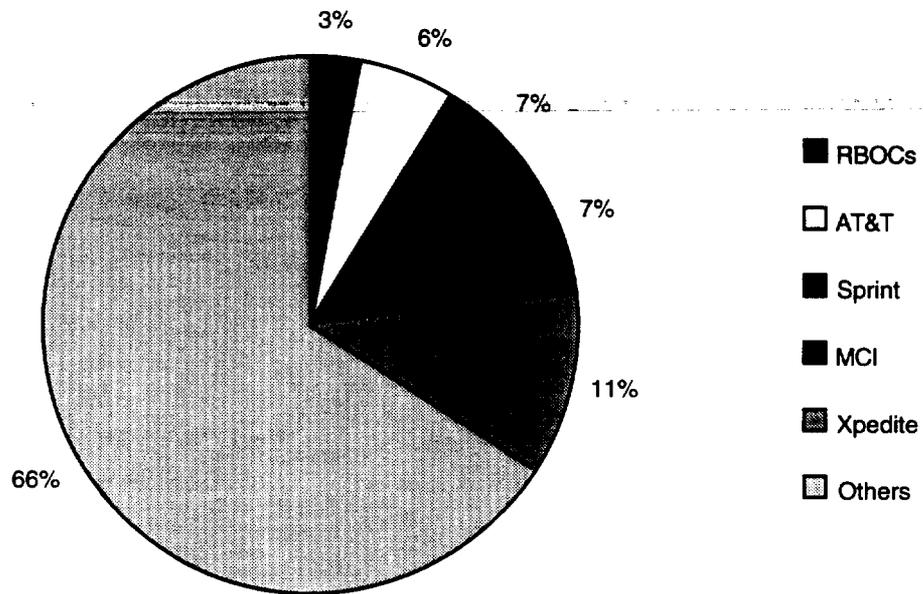
Source: Marketfinders

- Service Bureaus: these independent providers have 58% of the market between them. They have been growing rapidly. Xpedite is the largest with Broadcast Fax revenues of \$33MM in 1994. A tier of successful Independent Fax Service providers has emerged, providing high quality service to specific market niches.
- VANS networks: this segment include players such as Advantis and GEIS, but it is dominated by the IXCs – AT&T, MCI and Sprint. These players incorporate Fax capabilities into their E mail networks. This has not been a primary thrust of their businesses, partly because the VAN services have limited functionality and are generally priced at a higher rate than the separate Enhanced Fax offerings.
- IXCs: in addition to their VANS-related Fax revenues, the IXCs have set up separate Fax Service businesses. These have been fairly successful,

despite having higher prices than the rest of the market and despite not using dedicated sales forces. MCI has grown the most quickly, jumping ~40% in 1994.

- The RBOCs: Despite their efforts, the RBOCs have not been very successful in this segment. They have only managed to capture a tiny share of the market (3% in 1994). Bell South and Bell Atlantic have actually shut down their Fax operations after failing to meet revenue objectives. U S WEST has reigned back theirs for similar reasons.

EXHIBIT IV.5: SHARE OF ENHANCED FAX SERVICE REVENUE BY MAJOR PLAYER



Source: Marketfinders

Conclusions

The facts demonstrate compelling benefits associated with RBOC participation in the Enhanced Services Market under the current CI-III rules environment. The overall market is thriving as evidenced by its 18% annual growth, powerful market participants, low concentration of market share and rapid rate of new service introduction. RBOCs in total have less than 10% of the market, despite participation in every segment. No individual RBOC controls more than 2% of the market. Given this fragmentation, it is highly unlikely that RBOCs would be able to act anti-competitively. Two specific cases bear out the general finding.

The case of voice messaging demonstrates the specific benefits of RBOC participation under CI-III rules. In 1990, prior to RBOC entry, voice messaging service was the preserve of business and wealthy individuals. Service bureaus charged \$15-25 per month for a voice mailbox and significantly more for live operator attendant. They attracted fewer than a million residential subscribers. RBOC voice mail, competitively priced at around \$6 per month for basic service for residential customers, has caused a dramatic expansion of the mass market by attracting some 4 million residential subscribers in four years. Similar gains have been achieved in the small business segment. U S WEST in particular has emphasized consumers across its broad service territory: not only high-income population centers, but also rural areas, low income areas and minorities. U S WEST's consumer-marketing experience and focus has brought customized services to communities of interest, such as network voicemail to parents and teachers in Arizona schools, and Spanish voicemail to residents of Albuquerque. Competitors, meanwhile, have been forced to reduce prices and step up innovation, but their businesses are healthy. The three largest independent voice mail service bureaus all enjoyed substantial growth in recent years. Equipment sales (including residential and business) have expanded \$800 MM in the past four years: more than the RBOC's new voicemail revenues. We conclude that the combination of significant public good, and lack of harm to competitors, indicates a strong net benefit from RBOC participation under current rules in this market segment.

Enhanced Fax services tell a different story. In this segment, RBOCs have failed to capture significant market share. Instead, independent service bureaus and IXCs control this segment, despite substantial efforts on the part of some RBOCs to develop this line of business. U S WEST in particular, spent \$2-3MM per year promoting its

Enhanced Fax services: far more than any other provider in its territory, according to an industry watcher. This contributed to the threefold expansion of this market between 1991 and 1994. However, the U S WEST service offering was ultimately uncompetitive, and attracted few customers, resulting in substantial losses to U S WEST. Other RBOCs with similar experiences exited the market segment altogether. Some competitors complain that under current CI-III rules, RBOCs have too much market power. But this case indicates that RBOCs were either unable or unwilling to prevent their competitors from amassing a 95%+ share in a market in which RBOCs had made substantial investments.

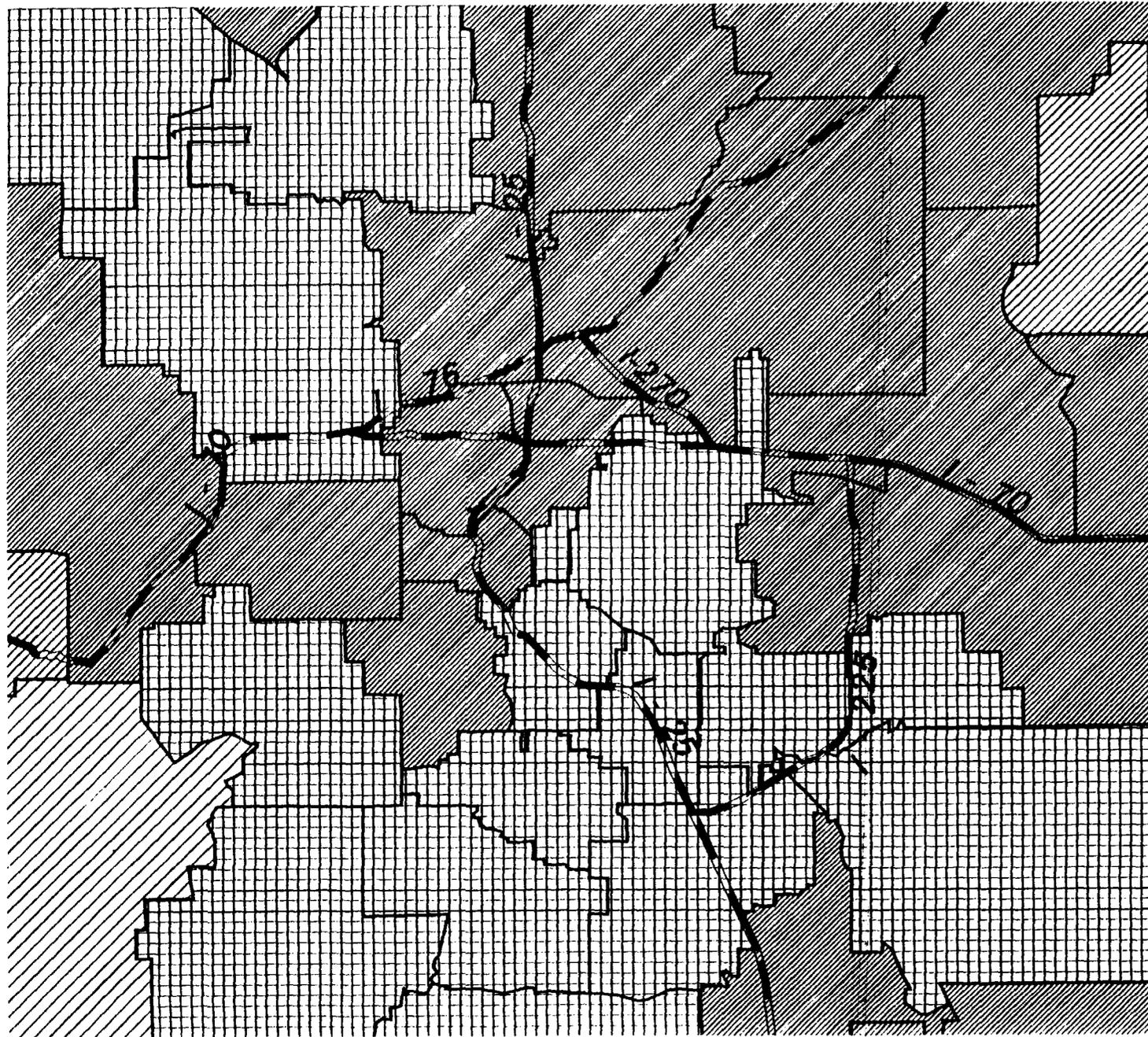
**APPENDIX I. MAPS OF U S
WEST VOICE MESSAGING
SERVICE CUSTOMERS**

APPENDIX II. TRANSCRIPT OF
PARENT-TEACHER LINK
FOCUS GROUPS

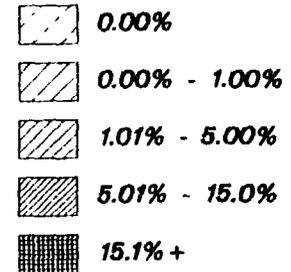
APPENDIX III. NEWS ARTICLES
ABOUT PARENT-TEACHER
LINK

APPENDIX 1

DENVER COLORADO VOICE MESSAGE PENETRATION RATE BY WIRE CENTER



VOICE MESSAGE
PENETRATION RATE

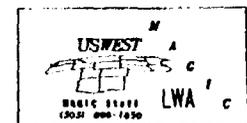


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DENVER COLORADO MEDIAN HOUSEHOLD INCOME BY 1990 CENSUS BLOCK GROUP

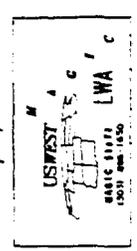
1990 CENSUS
MEDIAN HOUSEHOLD INCOME

- 0
- \$0.01 - \$20,000.00
- \$20,000.01 - \$25,000.00
- \$25,000.01 - \$40,000.00
- \$40,000.00 +

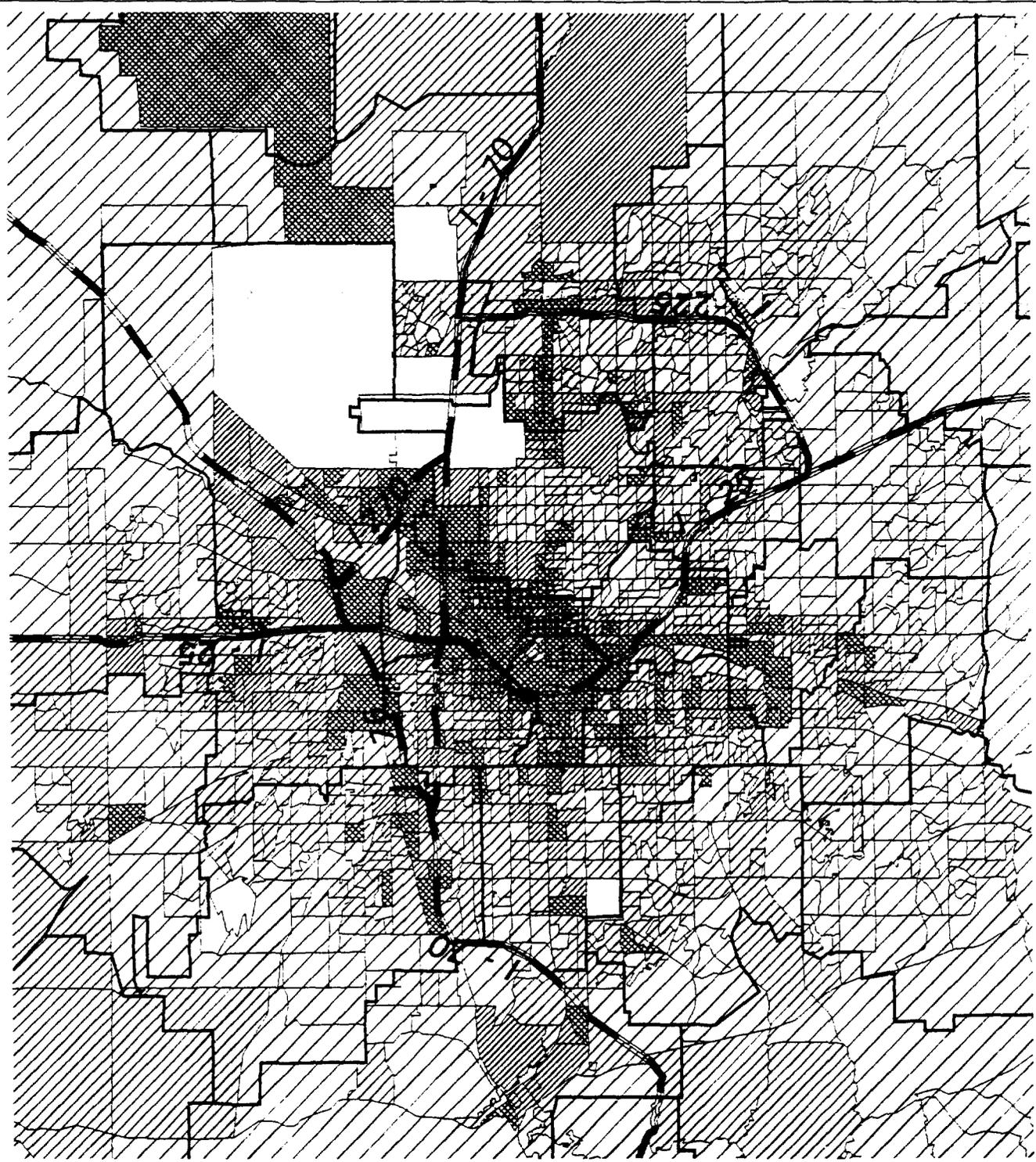
WIRE CENTER
BOUNDARY



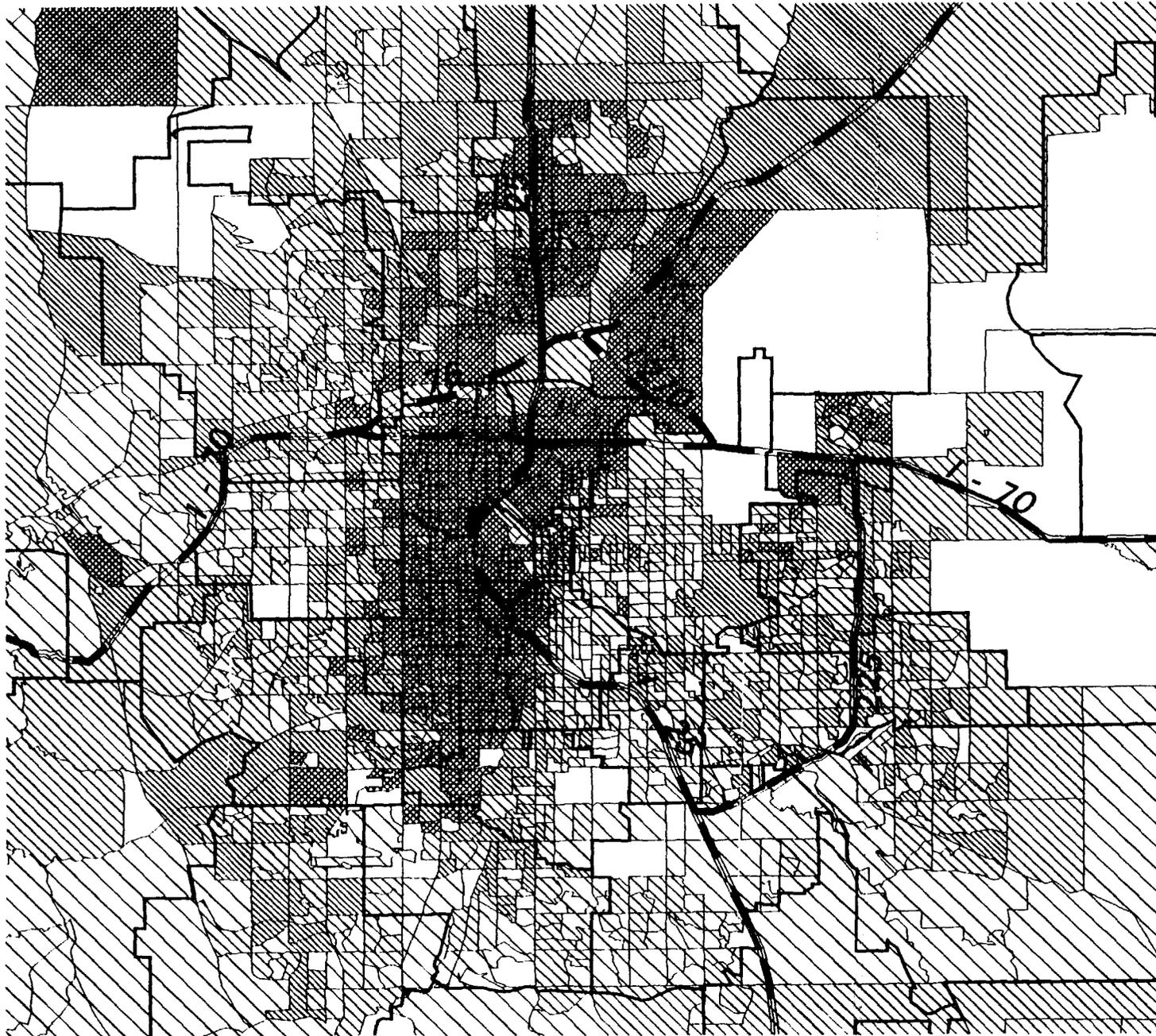
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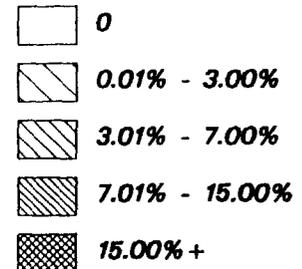
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DENVER COLORADO HISPANIC PERCENTAGE BY 1990 CENSUS BLOCK GROUP



1990 CENSUS
HISPANIC PERCENTAGE



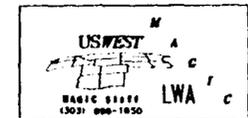
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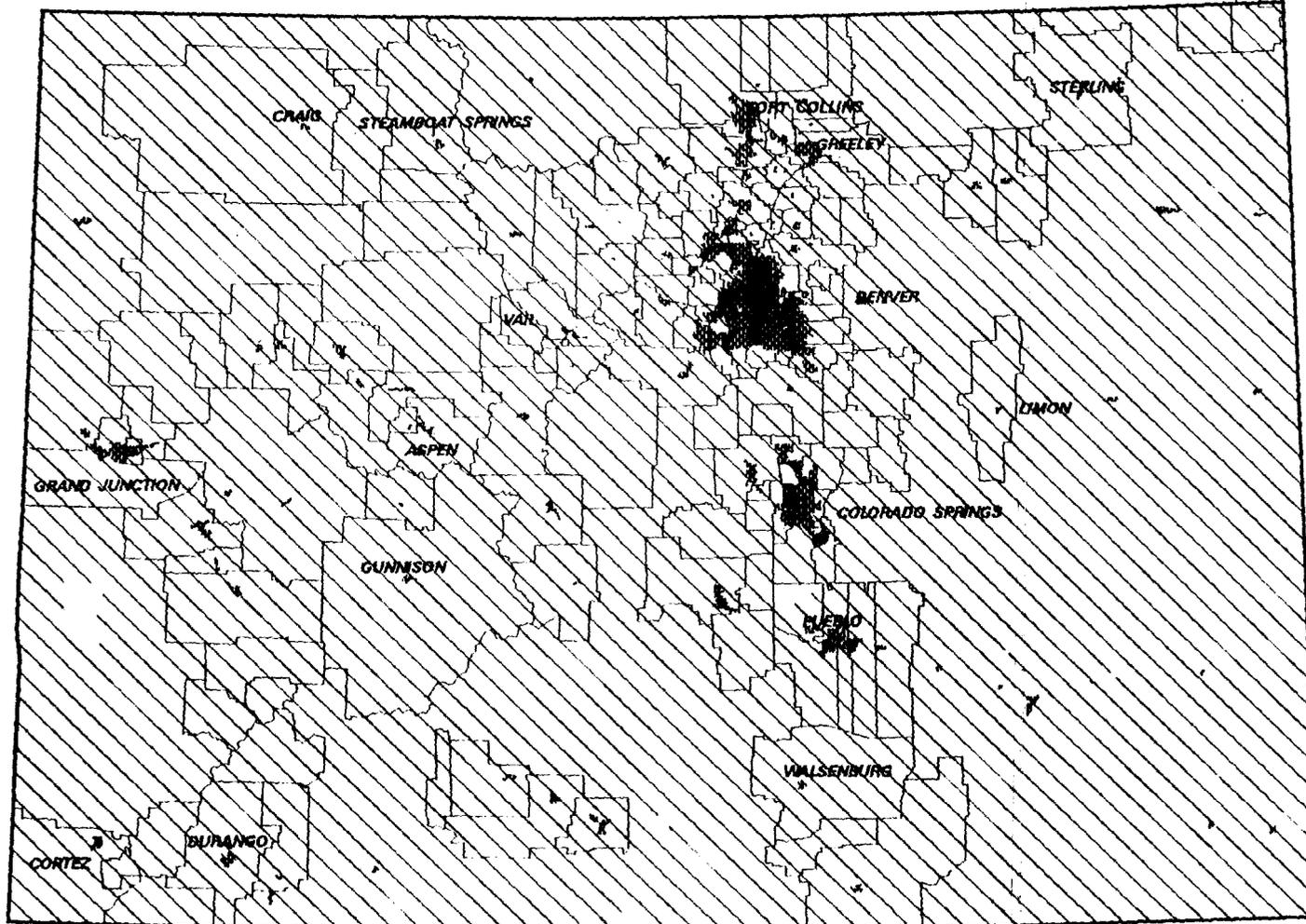
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COLORADO 1990 CENSUS HOUSEHOLD DENSITY BY CENSUS BLOCK GROUP



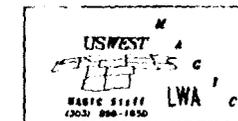
HOUSEHOLDS
PER SQUARE MILE

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-  0.01 - 60.00
-  60.01+
-  WIRE CENTER
BOUNDARY

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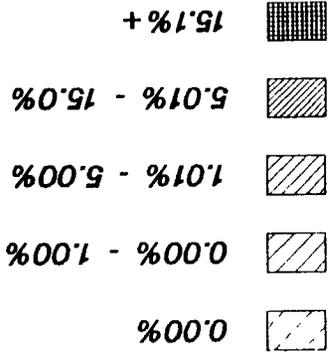
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COLORADO

VOICE MESSAGE PENETRATION RATE BY WIRE CENTER

VOICE MESSAGE PENETRATION RATE



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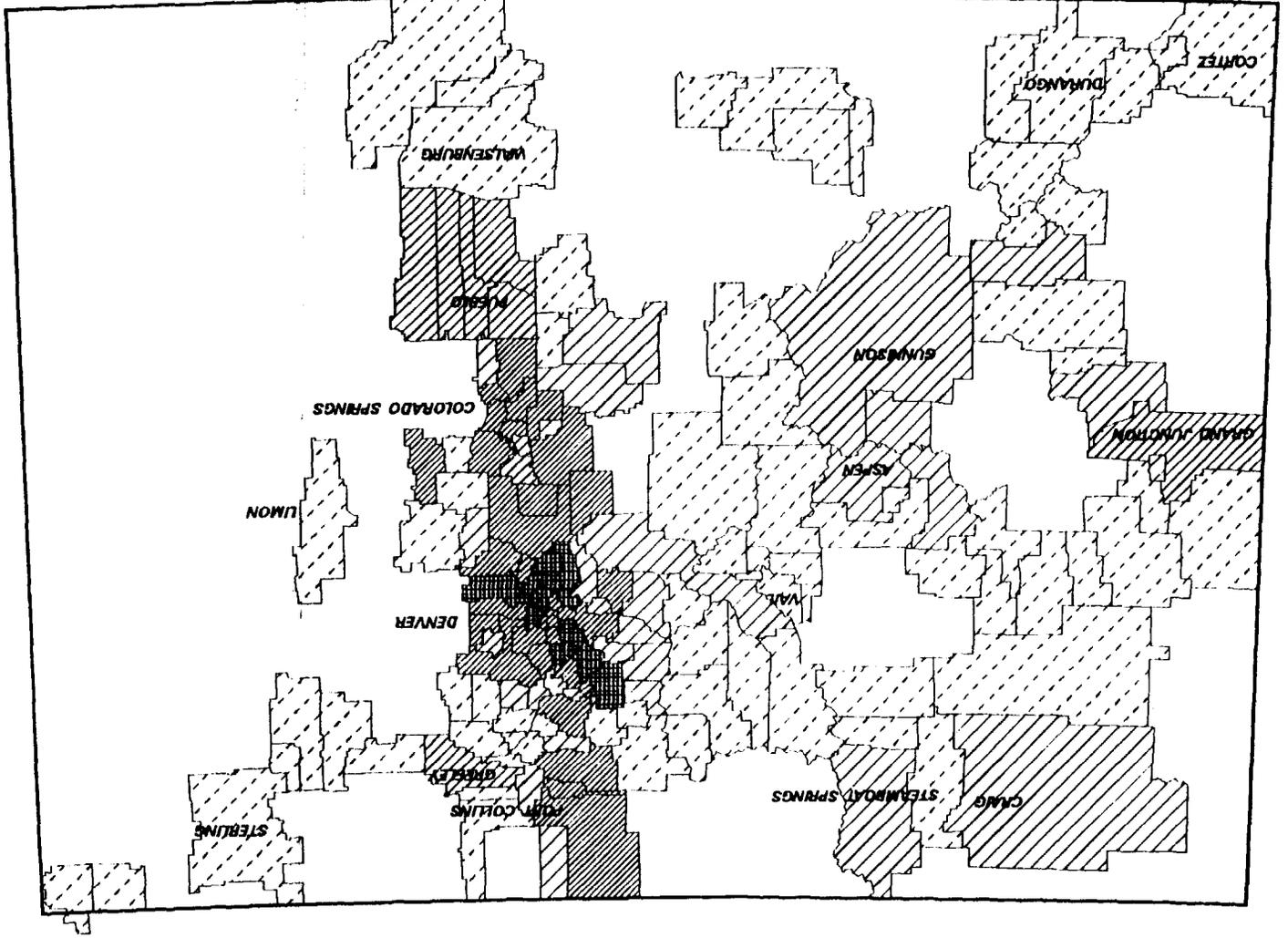
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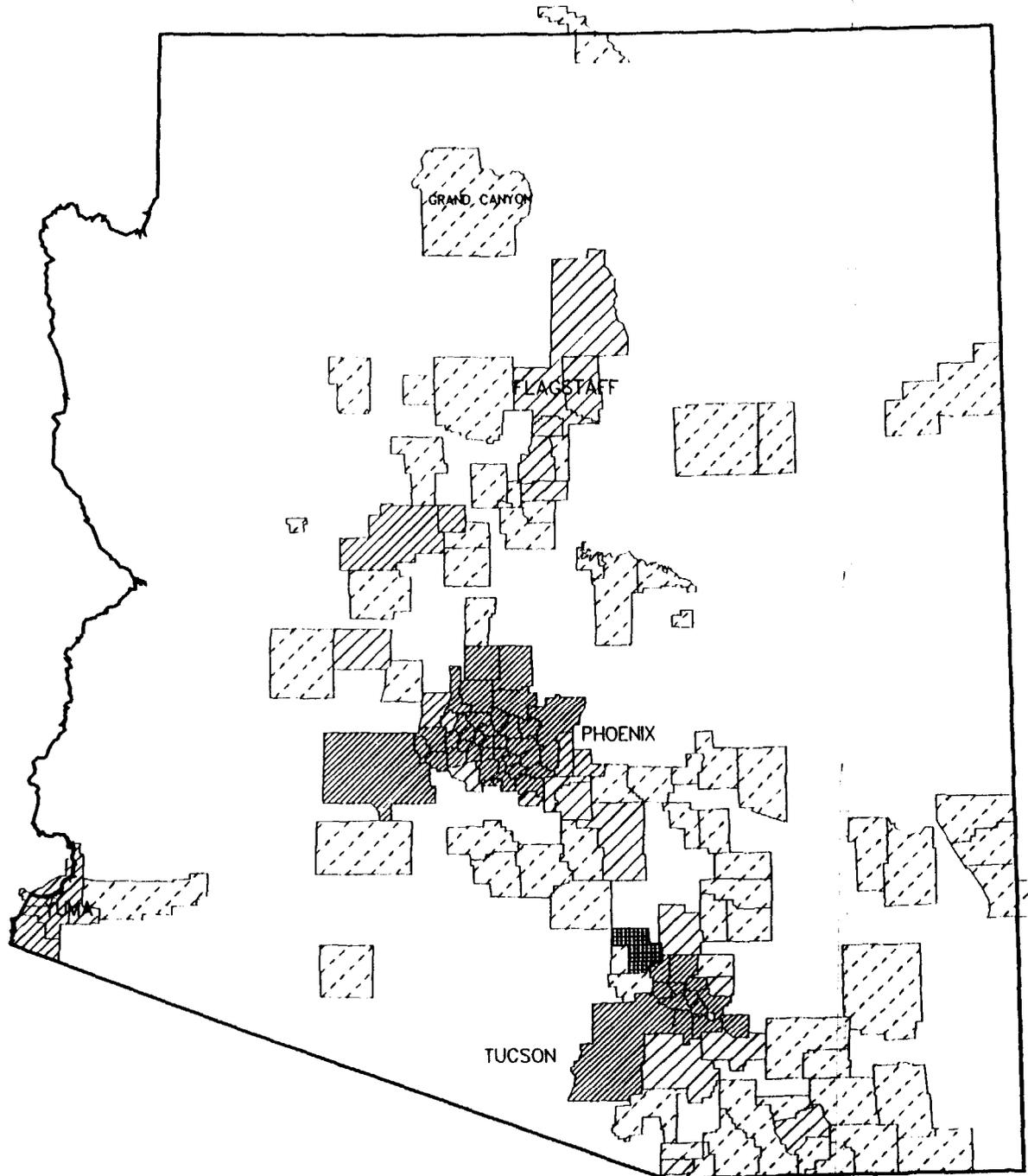


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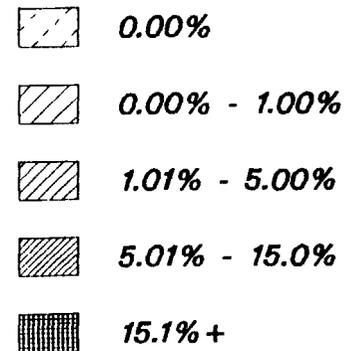
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ARIZONA VOICE MESSAGE PENETRATION RATE BY WIRE CENTER



VOICE MESSAGE PENETRATION RATE



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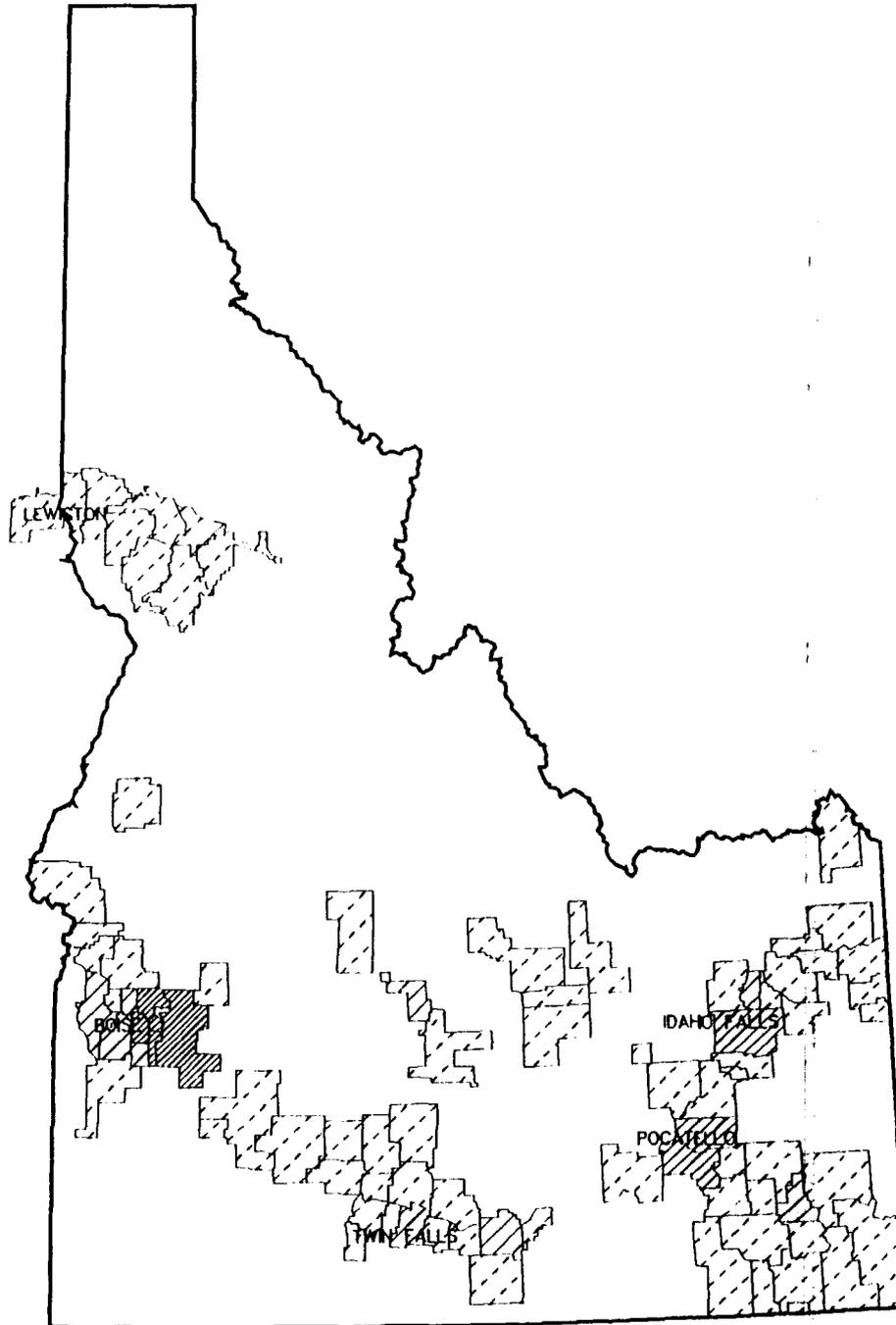
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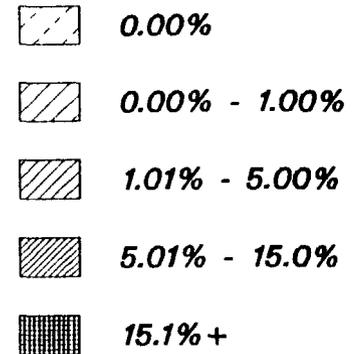
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IDAHO VOICE MESSAGE PENETRATION RATE BY WIRE CENTER



VOICE MESSAGE PENETRATION RATE

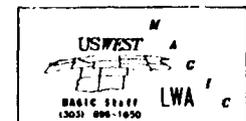


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IOWA VOICE MESSAGE PENETRATION RATE BY WIRE CENTER

VOICE MESSAGE
PENETRATION RATE

- 0.00%
- 0.00% - 1.00%
- 1.01% - 5.00%
- 5.01% - 15.0%
- 15.1% +



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