

BIRCH RADIO

METHODOLOGICAL IMPROVEMENTS
DESCRIPTION AND RESULTS

REVISED AS OF JUNE, 1986



AGENDA

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	Α.	CENTRAL CALLING FACILITY INTERVIEWING	
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CENTRALIZED TELEPHONE INTERVIEWING

... WHAT IS IT?

- 1. ALL DATA COLLECTED FROM TWO BIRCH-OWNED AND -MANAGED CALLING CENTERS AT SARASOTA AND CORAL SPRINGS. FLORIDA.
- 2. SARASOTA FACILITY ACQUIRED IN SEPTEMBER, 1985, FROM A. C. NIELSEN. FACILITY MANAGERS AND INTERVIEWERS PREVIOUSLY TRAINED AND EMPLOYED BY NIELSEN, RETRAINED AND EMPLOYED BY BIRCH.
- 3. ALL INTERVIEWERS:
 - . MONITORED BY BIRCH MANAGEMENT.
 - Must undergo 3 5 day intensive training program.
 - · PAID BY THE HOUR NOT BY COMPLETED INTERVIEW.
- 4. MARKET ROLLOUT BEGAN IN SEPTEMBER, 1985; ALL MARKETS IN CENTRAL FACILITY AS OF MARCH, 1986.



CENTRALIZED TELEPHONE INTERVIEWING

... WHY DO IT?

- 1. IMPROVE QUALITY ASSURANCE.
- 2. IMPROVE QUALITY OF EXECUTION.
- 3. INCREASE STANDARDIZATION OF TRAINING PROCEDURES AND QUESTIONNAIRE ADMINISTRATION.
- 4. IMPROVE SAMPLE MANAGEMENT.
- 5. CONSTANT MONITORING POSSIBLE WITH ALL INTERVIEWERS.
- 6. Increases client confidence in Birch data collection.



TOTAL TELEPHONE FRAME SAMPLES (TTF)

... WHY USE IT?

- 1. Sample frame "GOODNESS," THE HEART OF QUALITY RESEARCH.
- 2. BIRCH ANALYSIS OF AVAILABLE SAMPLE FRAMES THAT COULD BE PURCHASED OR DEVELOPED INTERNALLY DETERMINED TTF TO BE HIGHEST-QUALITY FRAME AVAILABLE.
- 3. Existing Birch frame did not assure inclusion of new exchanges.
- 4. TTF A PROVEN TECHNIQUE ... IN USE BY NIELSEN SINCE 1976.

... TTF BEST, HIGHEST-QUALITY SAMPLE FRAME.



"LAST BIRTHDAY" RESPONDENT SELECTION (LBRS)

... WHY DO IT?

- 1. Previous technique ("NTH OLDEST" METHOD) DIFFICULT FOR RESPONDENTS TO UNDERSTAND. OVERCOMES HESITANCY TO COOPERATE.
- 2. LBRS SIMPLER ...
 - FEWER INITIAL REFUSALS BY RESPONDENTS;
 - · REDUCTION IN LENGTH OF INTERVIEW.
- 3. LBRS IMPROVES RESEARCH QUALITY AND ACCURACY.
 - IMPROVES RESPONSE RATES;
 - · SAMPLE DEMOGRAPHIC DISTRIBUTIONS CLOSER TO POPULATION.



FULL-MONTH INTERVIEWING

... WHY DO IT?

- 1. CONTINUOUS MEASUREMENT MINIMIZES EFFECTS OF ATYPICAL EVENTS ON SAMPLE.
 - NEWS EVENTS (SHUTTLE DISASTER)
 - WEATHER EVENTS
- 2. MINIMIZES EFFECTS ON ESTIMATES OF CONCENTRATED STATION PROMOTIONS.



Daily Sample Replicates (DSR)

... WHAT IS IT?

- 1. SEPARATE, FULL-MARKET SAMPLES FOR EACH DAY OF INTERVIEWING.
- 2. "REPLICATES" FULL MARKET: INDIVIDUAL DSR'S ARE PROPERLY BALANCED BY COUNTY AND ZIP CODE POPULATION PATTERNS.
- 3. IMPLEMENTED IN JANUARY, 1986.



DAILY SAMPLE REPLICATES (DSR)

... WHY DO IT?

BECAUSE DSR'S GIVE PROPER REPRESENTATION OF FULL MARKET, FOR EACH DAY OF INTERVIEWING.



WEIGHTING SYSTEM ENHANCEMENTS

... WHAT IS IT?

Two enhancements added, effective with January-March, 1986, Quarterly Summary Report:

- 1. PROBABILITY OF SELECTION WEIGHTS. COUNTERACTS UNEQUAL CHANCE OF SELECTION BASED ON NUMBER OF INDIVIDUALS WITHIN HOUSEHOLD.
- 2. Day of Week Weights. Insures that each day of the week represents 1/7th of the total sample.



WEIGHTING SYSTEM ENHANCEMENTS

... WHY DO IT?

PROBABILITY OF SELECTION: MOST RESEARCHERS AGREE THAT SAMPLING ONE RANDOMLY-CHOSEN PERSON WITHIN A HOUSEHOLD (BIRCH METHOD) IS SUPERIOR TO SAMPLING ALL PERSONS IN A HOUSEHOLD (ARBITRON METHOD). WITH THIS IN MIND, PROBABILITY OF SELECTION WEIGHTING ASSURES THAT ALL INDIVIDUALS ARE PROPERLY REPRESENTED, REGARDLESS OF THE SIZE OF THE HOUSEHOLD IN WHICH THEY LIVE.

DAY OF WEEK: BIRCH RADIO HAS RECENTLY BEGUN INCREASING WEEKEND SAMPLE SIZES TO IMPROVE THE RELIABILITY AND TRENDABILITY OF WEEKEND ESTIMATES. DAY OF WEEK WEIGHTING IS NECESSARY TO MAINTAIN PROPORTIONATE REPRESENTATION OF EACH DAY OF THE WEEK IN MULTIPLE-DAY ESTIMATES.

ARBITRON DIARY RETURN RATES VARY BY HOUSEHOLD SIZE, WHICH IN TURN CHANGES THE PROBABILITY OF SELECTION OF RESPONDENTS. RESEARCHERS GENERALLY AGREE THAT WEIGHTING SHOULD BE USED TO COMPENSATE FOR DIFFERENTIAL PROBABILITIES OF SELECTION.



SUMMARY OF METHODOLOGICAL IMPROVEMENTS

AREA ENHANCED	ITEM	KEY BENEFITS
SAMPLING	TOTAL TELEPHONE FRAME	- BEST RANDOM-DIGIT DIALING FRAME IN USE TODAY.
	DAILY SAMPLE REPLICATES	- ASSURES MORE REPRESENTATIVE SAMPLING ACROSS DAYS.
	LAST BIRTHDAY RESPONDENT SELECTION	- Improves Response Rates and Sample Distributions.
DATA COLLECTION	CENTRALIZED TELEPHONE INTERVIEWING	- IMPROVES QUALITY ASSURANCE AND SAMPLE MANAGEMENT.
	FULL-MONTH INTERVIEWING	- REDUCES EFFECTS OF ATYPICAL EVENTS AND STATION "HYPOING" ACTIVITIES.
Processing	PROBABILITY OF SELECTION WEIGHTING	- INSURES PROPER REPRESENTATION OF ALL PERSONS IN TABULATED RESULTS.
	DAY OF WEEK WEIGHTS	- ALLOWS INCREASED SAMPLING OF ANY DAYS WITHOUT IMPACTING COMBINATION DAY
		Birch Radio
		Kadio

RESPONSE RATES POTENTIALLY IMPACTED BY:

- · CENTRALLY-MONITORED INTERVIEWING.
- TOTAL TELEPHONE FRAME SAMPLES.
- · LAST BIRTHDAY RESPONDENT SELECTION.
- · Daily Sample Replicates.
- FULL MONTH INTERVIEWING.



RESPONSE RATE COMPARISON FALL '85 VS. WINTER '86

MARKET	FALL '85	WINTER '86	COMMENT
New York	47.5%	59.5%	SIGNIFICANT IMPROVEMENT.
Los Angeles	50.7%	57.1%	SIGNIFICANT IMPROVEMENT.
Houston	50.5%	58.4%	SIGNIFICANT IMPROVEMENT.
DALLAS	69.8%	68.6%	No significant difference.
MINNEAPOLIS	76.9%	73.6%	MARGINAL DROP

... 3 MARKETS UP SIGNIFICANTLY.

... 1 MARKET UNCHANGED.

... 1 MARKET OFF SLIGHTLY.



SAMPLE DISTRIBUTIONS POTENTIALLY IMPACTED BY:

- * CENTRALIZED INTERVIEWING.
- TOTAL TELEPHONE FRAME SAMPLES.
- · LAST BIRTHDAY RESPONDENT SELECTION.
- FULL MONTH INTERVIEWING.
- DAILY SAMPLE REPLICATES.



IMPROVEMENTS MADE IN FRAME AND COLLECTION TECHNIQUES IMPROVED SAMPLE DISTRIBUTION.

- 1. 4 OF 5 MARKETS COMPARED CLOSER TO POPULATION IN WINTER '86.
- 2. OF 88 DEMO CELL COMPARISONS WITH POPULATION:
 - 46 WERE CLOSER IN WINTER '86.
 - 31 WERE CLOSER IN FALL '85.
 - 11 WERE UNCHANGED OR SAME RELATIVE DIFFERENCE.



BIRCH RADIO SAMPLE DISTRIBUTION VS. POPULATION

5 MARKETS IN DETAIL

		NE	w York		Los	ANGEL	ES	H	OUSTON		, <u>D</u>	ALLAS		MIN	NEAPOL	15
		POP%	FALL%	WIN%	POP%	FALL%	WIN%	POP%	FALL%	WIN%	POP%	FALL%	WIN%	POP%	1	WIN%
MEN	12-17	5.3	3.9	4.2	5.1	3.8	4.4	5.6	6.4	6.1	5.4	5.3	5.3	5.6	4.8	4.4
	18-24	6.0	4.3	5.5	7.6	6.2	6.3	7.8	6.0	6.6	7.4	6.6	7.5	7.4	4.7	4.7
	25-34	9.6	9.7	9.7	11.6	10.9	12.3	13.7	13.0	12.6	12.0	10.0	11.0	11.9	9.9	12.5
	35-44	8.2	6.9	7.7	8.8	7.0	7.9	9.6	7.3	6.5	9.3	6.6	$\begin{bmatrix} 7.1 \end{bmatrix}$	8.8	7.5	7.7
	45-49	3.1	1.8	2.1	3.1	2.7	1.9	3.1	2.4	2.0	3.1	2.4	2.3	2.9	1.6	2.3
	50-54	3.0	2.1	1.8	2.7	2.7	2.0	2.6	2.3	2.2	2.5	1.6	2.4	2.5	2.1	2.2
	55-64	5.5	5.3	4.8	5.0	5.0	5.1	4.1	4.0	4.2	4.4	3.3	3.1	4.4	4.2	4.1
	65+	5.9	6.2	5.2	4.7	5.3	5.2	3.4	2.8	1.9	4.1	4.6	3.9	4.6	[4.1]	4.0
WOMEN	12-17 18-24 25-34 35-44 45-49 50-54 55-64 65+	5.1 6.2 10.3 9.0 3.4 3.3 6.5 9.6	3.9 5.9 14.2 10.0 3.2 3.9 7.8 10.8	5.2 5.9 13.4 9.9 3.4 3.9 7.5	4.9 7.2 11.3 8.8 3.2 2.9 5.5 7.7	4.0 7.2 12.6 8.7 2.6 3.4 8.2 9.9	4.3 6.5 13.3 7.9 2.9 3.4 6.7 9.9	5.4 7.5 12.9 9.2 3.1 2.6 4.3 5.1	8.6 6.2 14.9 9.4 3.4 3.3 5.0 5.2	6.8 7.9 14.2 10.5 3.4 4.1 5.4 5.5	5.2 7.4 12.1 9.3 3.2 2.7 4.9 6.8	5.3 7.4 13.9 9.8 3.9 4.2 6.6 8.5	5.0 7.2 12.9 9.7 3.8 3.5 6.4 9.0	5.4 7.5 12.1 8.8 2.9 2.5 4.9 7.8	6.0 6.9 14.1 9.5 3.2 4.3 6.2 10.1	5.1 6.7 15.2 10.3 2.6 3.6 4.8 9.9
BLAG		16.3	13.5 7.7	12.0	9.8 25.5	9.5	7.9	18.0	14.3 11.5	15.2 13.9	13.4	11.6 7.5	10.9		,	
		Closer	in Winter in Fall ged/Same D	4	Closer	in Winter in Fall ped/Same D	7	Closer	in Winter in Fall ped/Same D	9	Closer	in Winter in Fall ged/Same D	5	Closer	in Winter in Fall ed/Same D	6

METHODOLOGY ENHANCEMENTS HAD NO APPRECIABLE EFFECT ON LEVELS

OF 5 MARKET COMPARISONS ...

- No significant difference in 3 markets.
- 1 MARKET (MINNEAPOLIS) SIGNIFICANTLY HIGHER IN WINTER.
- 1 MARKET (HOUSTON) MARGINALLY HIGHER IN WINTER.



METHODOLOGY ENHANCEMENTS HAD NO APPRECIABLE EFFECT ON FORMAT SHARES

- 1. ALL FORMATS WITHIN 10% OF AVERAGE 4-BOOK SHARES, PAST YEAR.
 - 2. BLACK/URBAN, COUNTRY MARGINALLY HIGHER IN WINTER '86 (+8-10%).
 - 3. Adult Contemporary marginally lower (-5%) in Winter '86.
 - 4. ALL OTHER FORMATS WITHIN 3% OF 4-BOOK AVERAGE SHARES.



A LOOK AT FORMAT SHARES, AVERAGED ACROSS 5 MARKETS

RANKED BY HIGHEST INDEX

FORMAT	4-Book Average Share	Lowest Share	Highest Share	Winter '86 Share	Index Against Average
BLACK/URBAN	11.3%	10.4%	12.5%	12.5%	110
COUNTRY	11.4%	10.7%	12.4%	12.4%	108
ALBUM ROCK	12.0%	11.3%	12.5%	12.4%	103
BEAUTIFUL MUSIC	5.9%	5.4%	6.1%	6.0%	102
CONTEMPORARY HIT	17.1%	16.2%	17.9%*	16.7%	98
NEWS/TALK	12.6%	12.2%	13.0%	12.2%	97
Adult Contemporar	y 13.4%	12.7%	13.8%	12.7%	95

^{*}SUMMERTIME LISTENING BOLSTERED BY TEEN AVAILABILITY.

Mon.-Sun. 6 AM-MIDNIGHT
PERSONS 12+ AQH METRO SHARES
SPRING '85 - WINTER '86
NEW YORK, LOS ANGELES, HOUSTON,
DALLAS, MINNEAPOLIS/ST. PAUL
BIRCH QUARTERLY SUMMARY REPORTS



WHERE FORMAT CHANGES WERE OBSERVED ...

American Constituentement of the American of

- DIRECTIONAL?
- RANDOM?
- SEASONAL?

LET'S LOOK AT ADULT CONTEMPORARY, BLACK/URBAN, COUNTRY ...



ADULT CONTEMPORARY CHANGES WERE RANDOM

MARKET	4-Bc	OOK AVERAGE SHARE	*	Winter '86 Share	COMMENTS
New York		10.9%		12.1%	WINTER '86 HIGHER.
Los Angeles		8.2%	c	9.3%	WINTER '86 HIGHER.
Houston		15.9%		12.5%	WINTER '86 LOWER.
Dallas		15.5%		14.6%	WINTER '86 LOWER, BUT EQUAL TO SUMMER '85.
MINNEAPOLIS		16.3%	4	15.3%	WINTER '86 LOWER, BUT HIGHER THAN FALL '85.

... NO CLEAR-DIRECTION OR PATTERN.

Mon.-Sun. 6 AM-MIDNIGHT
PERSONS 12+ AQH METRO SHARES
SPRING '85 - WINTER '86
NEW YORK, LOS ANGELES, HOUSTON,
DALLAS, MINNEAPOLIS/ST. PAUL
BIRCH QUARTERLY SUMMARY REPORTS



BLACK/URBAN CHANGES WERE RANDOM

MARKET	4-BOOK AVERAGE SHARE	WINTER '86 SHARE	COMMENTS
New York	13.3%	16.1%	WINTER '86 SIGNIFICANTLY HIGHER AND HIGHEST YEAR-TO-DATE, BUT CONSISTENT WITH TREND: 11.2-
			12.8-13.2-16.1.
Los Angeles	6.9%	7.8%	WINTER '86 HIGHER THAN AVERAGE BUT LOWER THAN SUMMER '85.
Houston	12.0%	13.7%	WINTER '86 HIGHER THAN AVERAGE, BUT CONSISTENT WITH 3-BOOK TREND: 10.6-12.3-13.7.
Dallas	13.0%	12.4%	WINTER '86 LOWER THAN AVERAGE AND 2ND LOWEST YEAR-TO-DATE.

Mon.-Sun. 6 AM-MIDNIGHT

Persons 12+ AQH Metro Shares

Spring '85 - Winter '86

New York, Los Angeles, Houston, Dallas

Birch Quarterly Summary Reports



COUNTRY CHANGES WERE RANDOM

MARKET	4-Book Average Share	WINTER '86 SHARE	COMMENTS
Los Angeles	3.2%	3.8%	Winter '86 marginally higher and highest of 4 books.
Houston	14.7%	15.6%	WINTER '86 MARGINALLY HIGHER, TIED WITH SPRING '85.
DALLAS	17.6%	20.0%	Winter '86 Higher and Highest of 4 Books. Country shares have increased 15.4-16.4-18.6-20.0 over past 4 quarters.
MINNEAPOLIS	10.2%	10.5%	No appreciable difference.

... WHILE DIRECTIONAL PATTERN OVERALL, INDIVIDUAL MARKET TRENDS INDICATE RANDOM CHANGE.

Mon.-Sun. 6 AM-MIDNIGHT
PERSONS 12+ AQH METRO SHARES
SPRING '85 - WINTER '86
LOS ANGELES, HOUSTON, DALLAS,
MINNEAPOLIS/ST. PAUL
BIRCH QUARTERLY SUMMARY REPORTS



SUMMARY OF METHODOLOGICAL ENHANCEMENTS ON REPORTED ESTIMATES

BASED ON THE 5-MARKET ANALYSIS QUOTED HEREIN, THE IMPROVEMENTS INITIATED BY BIRCH RADIO SINCE SEPTEMBER, 1985, HAVE HAD THE FOLLOWING RESULTS OVERALL:

- 1. RESPONSE RATES HAVE IMPROVED OVERALL.
- 2. SAMPLE DISTRIBUTIONS HAVE IMPROVED.
- 3. No appreciable effect on Listening Levels.
- 4. NO APPRECIABLE EFFECT ON FORMAT SHARES.



Birch Radio

Research

We give you more, more often

Birch Radio, Inc.
Corporate Headquarters/Northeast Region
120 Van Nostrand Avenue
Englewood Cliffs, New Jersey 07632
(201) 585-7667

Southeastern Region 2801 Buford Highway, Suite 370 Atlanta, Georgia 30329 (404) 634-6997

Midwestern Region
5105 Tollview Drive, Suite 190
Rolling Meadows, Illinois 60008
(312) 392-5353

Southwestern Region 4825 LBJ Freeway, Suite 204 Dallas, Texas 75244 (214) 934-3805

Western Region
18425 Burbank Boulevard, Suite 415
Tarzana, California 91356
(818) 343-1244

Birch Radio Canada, Inc. 235 Yorkland Boulevard, Suite 409 Toronto, Ontario, Canada M2J 4Y8 (416) 495-0067

Birch Research Corporation
Birch Consumer Research, Inc.
Birch Radio, Inc., Data Processing Center
Client Services: Elaine Martin
3200 N. University Drive
Coral Springs, Florida 33065
(305) 753-6043



June 16, 1987

Mr. Bruce Hoban Republic Radio 1 Dag Hammerskjold Plaza New York, N.Y. 10017

Dear Bruce:

As previously promised (in my letter of May 29, 1987), attached is a booklet which was recently sent to Ron Werth entitled, "Methodological Improvements Description and Results". Additionally, you'll find three additional pages of improvements which mends the booklet.

Thank you for your coopration in working with the Birch Radio Ratings organization.

Kindest regards,

William P. Livek President

Enc1.

IMPROVEMENTS IN BIRCH SERVICE 1985 - MAY 187

SAMPLE FRAME:

OLD -

MODIFIED SUDMAN TECHNIQUE

NEW -

NIELSEN'S TOTAL TELEPHONE FRAME

COMMENTS:

THIS SAMPLE FRAME IS PRODUCED BY
THE A.C. NIELSEN COMPANY AND USED
BY THEM SINCE 1976. IT IS A QUALIFIED
RANDOM DIGIT SAMPLING FRAME PROVIDING
EQUAL OPPORTUNITY FOR BOTH LISTED AND
NON-LISTED HOUSEHOLDS. THE BENEFIT OF
THIS SAMPLE FRAME OVER MOST EXISTING
SAMPLE FRAMES IS THAT IT IS UPDATED

TWICE ANNUALLY TO INSURE THE

INCLUSION OF NEW EXCHANGES. THIS IS

A BIRCH RADIO RATINGS EXCLUSIVE.
IMPLEMENTED AT BIRCH IN JANUARY, 1986.

S.P.P.H. SELECTION:

OLD -

A CENUS OCCURRED IN THE HOUSEHOLD AND A PERSON WAS RANDOMLY SELECTED FROM A

TABLE OF RANDOM NUMBERS.

NEW -

THE "BIRTHDAY" TECHNIQUE. AN

INDIVIDUAL, AGE 12+ IS CHOSEN ON THE BASIS OF THE MOST RECENT BIRTHDAY.

COMMENTS:

THIS TECHNIQUE WAS TESTED IN MARCH, AUGUST AND SEPTEMBER, 1985. IT WAS IMPLEMENTED AT BIRCH IN MARCH, 1986.



CENTRALIZED WATTS COLLECTION DATA CENTER:

OLD -

LOCAL MARKET INTERVIEWERS WERE HIRED AND WORKED FOR BIRCH ON A CONTRACT BASIS. THEY COULD HAVE BEEN LOCATED IN INTERVIEWING CENTERS WITHIN A LOCAL MARKET OR INDIVIDUALS WORKING OUT OF THEIR HOME.

MEM -

A HIGHLY-CONTROLLED AND CENTRALIZED INTERVIEWING ENVIRONMENT UTILIZED TO COLLECT ALL LISTENING DATA.

COMMENTS:

ALL DATA IS COLLECTED FROM THREE BIRCH-OWNED AND MANAGED CALLING CENTERS IN SARASOTA, CORAL SPRINGS, FLORIDA AND SAN ANTONIO, TEXAS. THE SARASOTA FACILITY WAS ACQUIRED IN SEPTEMBER, 1985 FROM THE A.C. NIELSEN THE FACILITY MANAGERS AND COMPANY. INTERVIEWERS WERE PREVIOUSLY TRAINED AND EMPLOYED BY NIELSEN WERE RETAINED AND EMPLOYED BY BIRCH. ADDITIONAL FACILITIES WERE OPENED IN CORAL SPRINGS, FLORIDA AND SAN ANTONIO, TEXAS. MARKET ROLL-CUT BEGAN IN SEPTEMBER, 1985 AND ALL MARKETS WERE 1986 OUT OF BY MARCH, MEASURED CENTRALIZED CALLING.

INTERVIEWING TIME FRAME:

OLD -

MEASURED TWO WEEKS OUT OF A MONTH. THE TWO WEEKS WERE RANDOM IN EVERY MARKET.

NEW -

FULL MONTH OF INTERVIEWING. EVERY MARKET WAS SAMPLED 28 DAYS OUT OF THE MONTH.

COMMENTS:

THIS ROLLED OUT WITH CENTRALIZED CALLING AND WAS FULLY IMPLEMENTED BY MARCH, 1986.

