

BIRCH RADIO

METHODOLOGICAL IMPROVEMENTS
DESCRIPTION AND RESULTS

REVISED AS OF JUNE, 1986



AGENDA

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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 ESTIMATES.
		Birch Radio

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		D	ALLAS		MIN	NEAPOL	15
		POP%	FALL%	WIN%	POP%	FALL%	WIN%	POP%	FALL%	WIN%	POP%	FALL%	WIN%	POP%		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	7.1	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	$\frac{2.3}{2.4}$	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	4.7	4.0
	40 47	F 4	2.0	[[]	4.0	4:0	4.3	5.4	8.6	6.8	5.2	5.3	5.0	5.4	6.0	5.1
WOMEN	12-17	5.1 6.2	3.9 5.9	5.9	4.9 7.2	7.2	6.5	7.5	6.2	7.9	7.4	7.4	7.2	7.5	6.9	6.7
	18-24 25-34	10.3	14.2	13.4	11.3	12.6	13.3	12.9	14.9	14.2	12.1	13.9	12.9	12.1	14.1	15.2
	35-44	9.0	10.0	9.9	8.8	8.7	7.9	9.2	9.4	10.5	9.3	9.8	9.7	8.8	9.5	10.3
	45-49	3.4	3.2	3.4	3.2	2.6	2.9	3.1	3.4	3.4	3.2	3.9	3.8	2.9	3.2	2.6
	50-54	3.3	3.9	3.9	2.9	3.4	3.4	2.6	3.3	4.1	2.7	4.2	3.5	2.5	4.3	3.6
	55-64	6.5	7.8	7.5	5.5	8.2	6.7	4.3	5.0	5.4	4.9	6.6	6.4	4.9	6.2	4.8
	65+	9.6	10.8	9.8	7.7	9.9	9.9	5.1	5.2	5.5	6.8	8.5	9.0	7.8	10.1	9.9
							l)									
BLA	CK	. 16.3	13.5	12.0	9.8	9.5	7.9	18.0	14.3	15.2	13.4	11.6	10.9			
His	PANIC	11.5	7.7	12.4	25.5	14.6	17.2	15.4	11.5	13.9	8.6	7.5	8.1			
			in Winter	11		in Winter	8		in Winter			in Winter		1	in Winter	8
		1	in Fall ged/Same D	iff. 3		in Fall ed/Same D	7 iff. 3	Closer Unchang	in Fall ed/Same D	9 iff. 2		in Fall ged/Same D	5 iff. 1		in Fall ed/Same D	

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	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 ...

- DIRECTIONAL?
- RANDOM?
- SEASONAL?

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



ADULT CONTEMPORARY CHANGES WERE RANDOM

MARKET	4-Book Average* Share	WINTER '86 SHARE	COMMENTS
New York	10.9%	12.1%	WINTER '86 HIGHER.
Los Angeles	8.2%	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%	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.



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Research



June 16, 1987

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

Dear Bruce:

"Met which amends Additionally, As ω previously hodological booklet the which promised you'll find booklet Improvements WAS (in recently my three letter additional pages sent Description of Мау to 29, Ron 1987), of and Werth improvements attached entitled.
Results".

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

Kindest regards,

William P. Livek President

Encl.

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	3		

IMPROVEMENTS BIRCH **SERVICE**

SAMPLE RAME: MOD IF IED SUDMAN TECHNIQUE

NEW NIELSEN'S TOTAL TELEPHONE \Box RAME

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 IND BAS "BIRTHDAY" TECHNIQUE. AN IVIDUAL, AGE 12+ IS CHOSEN ON T IS OF THE MOST RECENT BIRTHDAY. THE

COMMENTS:

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

CENTRALIZED WATTS
COLLECTION DATA
CENTER:

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.

NEW -

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 COMPANY. THE FACILITY MANAGERS AND INTERVIEWERS WERE PREVIOUSLY TRAINED AND EMPLOYED BY MIELSEN 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 SEPTEMBER, 1985 AND ALL MARKETS WERE CENTRALIZED CALLING.

INTERVIEWING

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.

Radio