grow the **audience**

for public radio

The Performance of Classical Music Stations

December 15, 2008

Station Resource Group
Walrus Research

Corporation for Public Broadcasting

INTRODUCTION: The Classical Music Franchise

Classical music radio, increasingly, is a nonprofit franchise. Our study of 50 top markets surfaced 30 classical music radio stations. Of these, 22 are public stations and 8 are commercial. Of the 8 commercial classical stations, however, only 3 are operated by for-profit entities; the other 5 are owned by nonprofit organizations.

Classical music is public radio's most successful music service. In Spring 2008, classical music public radio stations accounted for about 14% of all listening to public radio.

Classical stations rarely hold the top position among their public radio colleagues – public radio's "first chair" in large markets is most often occupied by an NPR news station. But classical stations surpass public radio's other principal music formats, jazz and AAA, in all the markets where public radio offers two or more "all music" stations.

Classical music also plays an important role at many mixed format stations that offer news and classical music. This report, however, centers on the focused-format stations at which classical music generates over 75% of the listening.

The audience performance of public radio's classical stations, as a group, has been remarkably stable over the past decade. The amount of listening (AQH audience or listener hours) to stations that have provided all-classical services throughout this period – same store sales, in effect – neither soared nor fell. The principal path to growth for public radio classical music stations has been the abandonment of the format by commercial stations, which opens market opportunities for public stations. In the last few years public stations are newly offering an all-classical service in Miami, Washington, DC, and Detroit. Elsewhere, such as Los Angeles, an existing public radio classical station has benefitted from the demise of commercial competition.

Differences in performance
Within the broad pattern of stable audiences for classical stations we can see significant differences in individual station performance. Some classical stations achieve shares of listening in their markets that are more than twice those of classical stations elsewhere.

INTRODUCTION: The Classical Music Franchise

Gaining a better understanding of these differences and what accounts for them is a key step in growing the public radio audience. We can do a better job of setting benchmarks to assess local efforts, framing goals for the format both locally and nationally, and calling attention to best practices across the country.

The report looks closely at the characteristics of individual radio markets – the context in which stations compete for listeners' attention and loyalty – and takes our understanding of station performance a major step forward. We review and build on our knowledge of the link between education levels in a community and public radio listening and explore other important market factors. We also offer breakthrough material – this and a companion study of NPR news stations is public radio's first use of VALS psychographic data at the market level.

Using advanced statistical techniques, we are able to:

Explore and explain the relative performance of different classical stations based on the characteristics of the markets they serve. Station programmers often remind observers that "our market is different." We sort out the differences that matter and calculate how much of a difference they make.

Identify top performers among classical stations – those that achieve audience levels significantly above what market characteristics alone would suggest – so we can learn from their experiences.

Predict the audience for a classical station in markets that do not currently have the format – places like Houston, Atlanta, and Tampa.

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SECTION ONE: STATIONS AND MARKETS

- **Listeners In Most Major Markets Are Served By A Classical Music Station**
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- **Market Size Does Not Explain Audience Share For Classical**
- **Type Of License Does Not Explain Audience Share For Classical Stations**
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MAJOR MARKETS: Classical Format

Listeners In Most Major Markets Are Served By A Classical Music Station

For this study we identified 30 stations that broadcast a classical music format in the top 50 major markets. Note that we included commercial classical stations such as WQXR New York and WFMT Chicago. That inclusion is valid for two reasons:

First, SRG and Public Radio Program Directors' *Core Values of Classical Music* research, conducted by Walrus Research, found that public and commercial stations delivered much the same value to listeners.

Second, public and commercial classical stations function as equivalents in the marketplace, such as when WETA replaced WGMS in Washington.

We do not include dual format stations like WABE Atlanta or WUSF Tampa.

Also not included are the PPM markets, Philadelphia and Houston, and the embedded markets such as Long Island.

Market	Metro Population 12+	Public	Commercial
New York	15,344,600		WQXR
Los Angeles	10,902,400	KUSC	
Chicago	7,784,400		WFMT
San Francisco	5,969,400		KDFC
Dallas-Fort Worth	4,973,000		WRR
Washington DC	4,210,000	WETA	
Boston	3,874,600		WCRB
Detroit	3,866,500	WRCJ	
Seattle-Tacoma	3,328,100		KING
Phoenix	3,173,200	KBAQ	
Minneapolis-Saint Paul	2,683,000	KSJN	
Saint Louis	2,308,400		KFUO
Baltimore	2,255,100	WBJC	
Denver-Boulder	2,244,300	KVOD	
Portland OR	2,049,600	KBPS	
Pittsburgh	1,986,600	WQED	
Charlotte-Gast-Rock Hill	1,886,100	WDAV	
Sacramento	1,805,200	KXPR	
Cleveland	1,782,400		WCLV
Cincinnati	1,751,400	WGUC	
San Antonio	1,626,500	KPAC	
Salt Lake City-Ogdn-Prvo	1,621,900	KBYU	
Las Vegas	1,541,900	KCNV	
Columbus OH	1,427,000	WOSU-F	
Norfolk-VA Beach-N.News	1,327,700	WHRO	
Austin	1,309,500	KMFA	
Raleigh-Durham	1,230,300	WCPE	
Buffalo-Niagra Falls	971,400	WNED-F	
Louisville	942,300	WUOL	
Rochester	934,100	WXXI-F	

AUDIENCE SHARE: Classical Format

Classical Music Stations Average 2.3 Metro Share

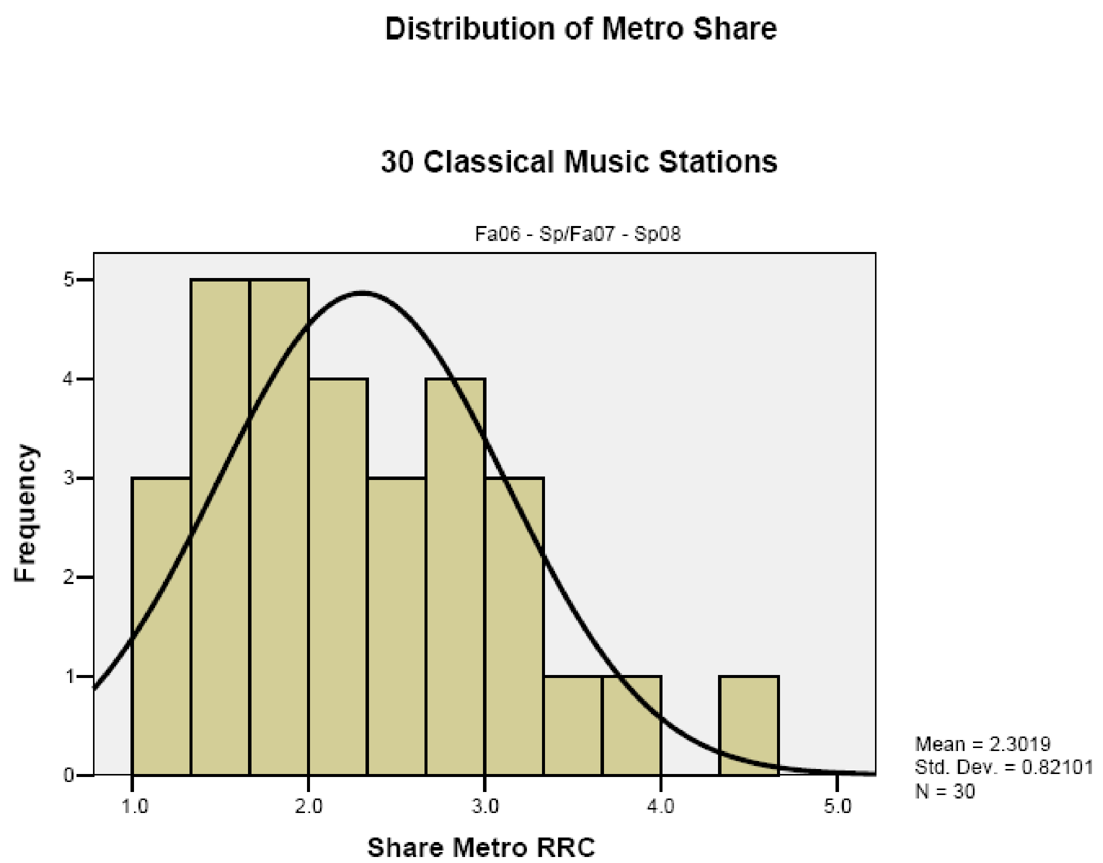
In this report we are looking for factors that explain and predict the audience of classical music stations. We begin with the most widely used measure of radio station performance, share of listening in the metro market.

The chart shows the distribution of audience share across 30 classical music stations. The average is 2.3 share points, although there is a range of performance from three stations down around 1 share point to one station doing over a 4 share.

For comparison, the average share for 33 NPR news format stations in the top 50 markets was 3.1 during a similar period.

These share numbers are reliable because we averaged four Arbitron surveys from Fall 2006 through Spring 2008.

While much of the programming on classical music stations is locally originated, they generally play the same music from market to market. What explains the differences in performance?



The original source for the data in this chart is Arbitron's diary database as processed by the RRC. We averaged metro share estimates over four surveys. The figures are percent of listening by persons 12+ for the broadcast week.

EXPLAINING SHARE: Not Market Size

Market Size Does Not Explain Audience Share For Classical

We used statistics to look at possible explanations for the variance in audience share among the 30 classical format stations in the top 50 markets.

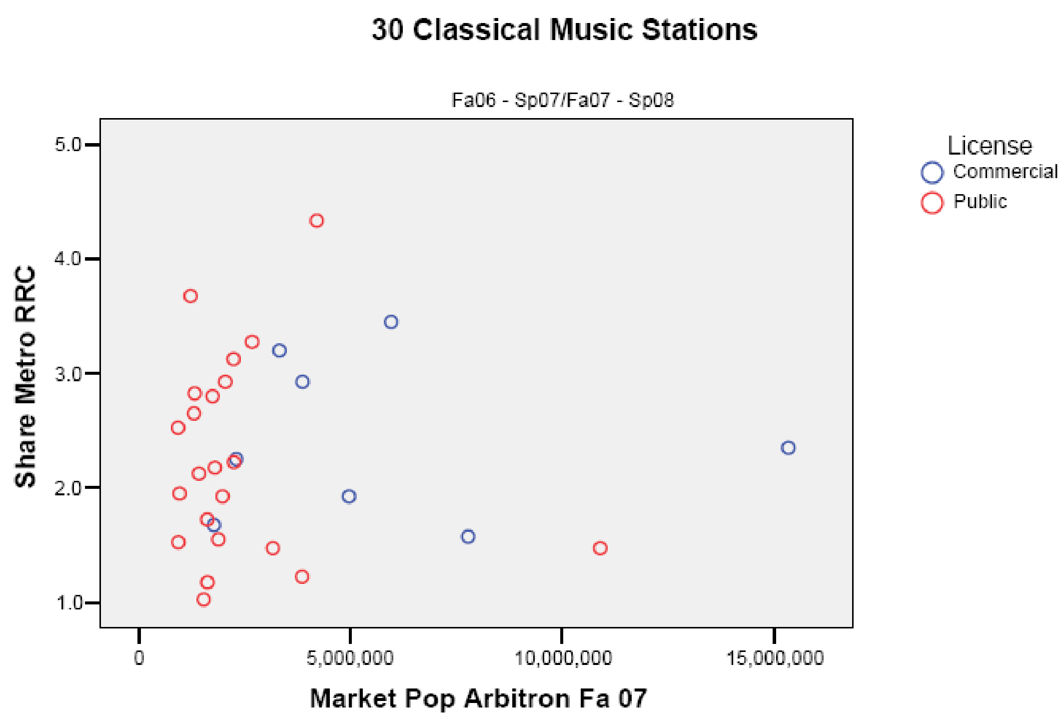
The first explanation to go was market population size, which does <u>not</u> correlate with metro share.

One might think that it is harder to capture audience share in very large markets, but we found <u>no significant correlation between market size and audience share</u> among these stations.

On this chart, each marker is a classical music station. The blue markers are commercial stations, while the red stations are operated as public radio.

The blue/red distinction is type of operation rather than ownership. Commercial WFMT, for example, is owned by the Chicago public television station. Commercial WCLV Cleveland and KING Seattle have been donated to local foundations.

No Significant Relationship Between Market Size and Station Share



The original source for the data in this chart is Arbitron's diary database as processed by the RRC. We averaged metro share estimates over four surveys. The figures are percent of listening by persons 12+ for the broadcast week.

EXPLAINING SHARE: Public vs Commercial

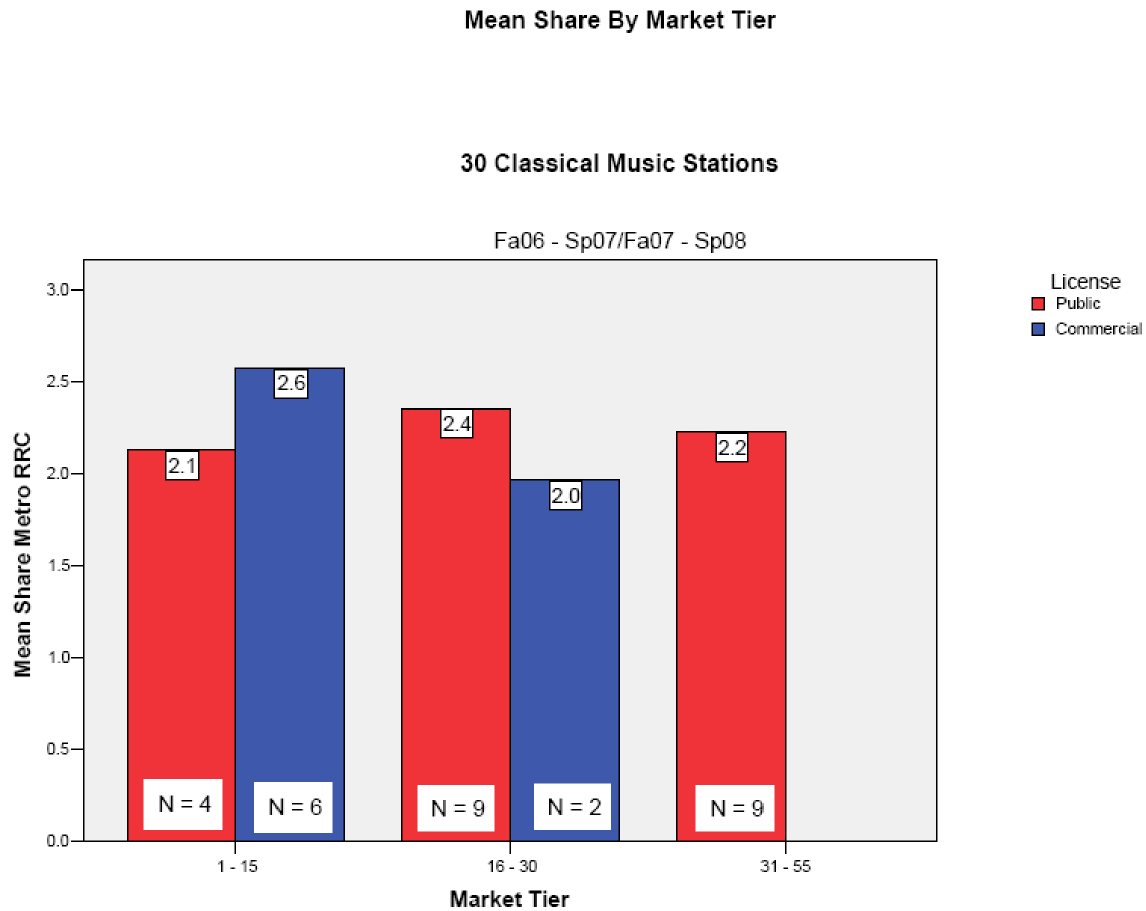
Type Of License Does Not Explain Audience Share For Classical Stations

It is sometimes asserted that commercial classical stations, motivated by advertising-driven profit, pursue different programming strategies than public stations. Do the commercial stations achieve higher shares?

There are only 8 commercial classical stations left in the top 50 markets. We found <u>no significant statistical difference</u> (ANOVA) between the audience share of commercial and public classical stations.

The chart shows that in the top 15 markets the 6 commercial stations average a 2.6 share, better than the 2.1 by 4 public stations. But in markets 16 to 30, the public stations average a 2.4 share, better than the commercial 2.0.

Each of the few remaining commercial stations has its unique story – such as WQXR maintained by family ownership of the New York Times. The type of license does not explain station share.



The original source for the data in this chart is Arbitron's diary database as processed by the RRC. We averaged metro share estimates over four surveys. The figures are percent of listening by persons 12+ for the broadcast week.

EXPLAINING SHARE: Cume Rating

Station Share Is Function Of Cume Rating Or Market Reach

The one powerful explanation for the audience share of classical music stations across different markets is cume rating, a station's reach into the market's 12+ population.

This chart shows a direct linear relationship between the station's cume rating and its metro share.

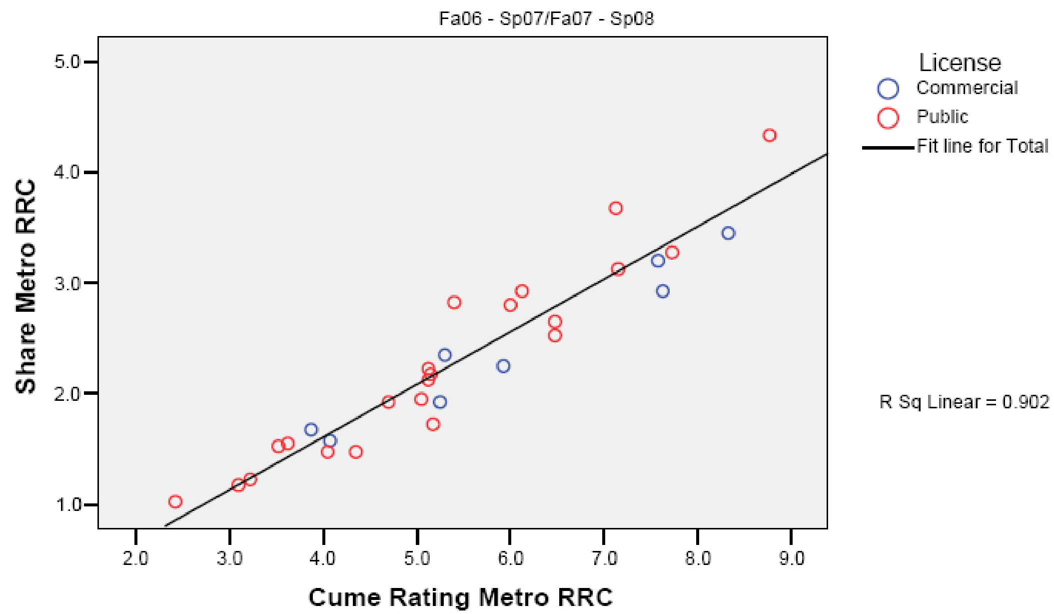
Metro cume rating is appropriate for our national analysis since we are looking at the demographic and psychographic composition of metro populations in different markets.

We will use metro cume rating as the dependent variable in this study – the measure of station performance to explain and predict.

Two recent public radio studies: *Listeners and Revenue* by Peacock Research for NPR and *Individual Giving to Public Radio Stations* by SRG, found that cume (and core cume) can predict station fund raising as well as audience share.

Direct Relationship Between Market Reach and Metro Share

30 Classical Music Stations



The original source for the data in this chart is Arbitron's diary database as processed by the RRC. We averaged metro share and cume rating estimates over four surveys. The figures are percent of listening by persons 12+ for the broadcast week.

SECTION ONE: STATIONS AND MARKETS

SECTION TWO: DEMOGRAPHICS

- **Classical Stations Achieve Greater Reach In Highly Educated Markets**
- **Economic Factors Like Income And Occupation Drop Out When Controlled By Education**
- **Racial/Ethnic Composition Of Market Population Does Not Explain Station Performance**

SECTION THREE: PSYCHOGRAPHICS

EXPLAINING REACH: Level Of Education

Classical Music Stations Achieve Greater Reach In Highly Educated Markets

Education is the strongest predictor of <u>individual</u> listening to public radio's major formats. Commercial classical stations also attract highly educated listeners. What happens at the <u>market</u> level?

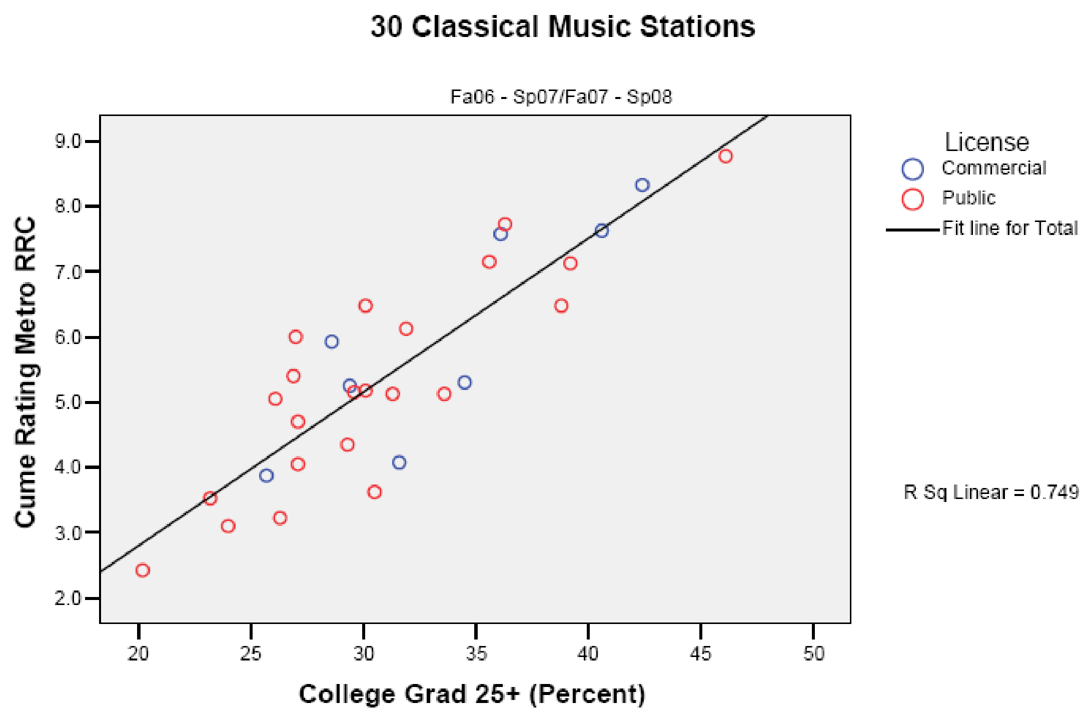
The x-axis on this chart is the percent composition of metro population by college graduates age 25 or older.

The correlation coefficient between the college composition of the market and the cume rating of the classical station is .865, indicating a strong relationship.

That translates to R Square of .749, which means that <u>market education alone explains 75 percent of the variance in classical stations' performance.</u>

In our previous report on the audience for NPR news stations, market education alone explained only 45 percent of the variance, so this correlation works even better for classical stations.

Very Strong Relationship Between Market Education And Station Reach



The original source for the data in this chart is Arbitron's diary database as processed by the RRC. We averaged cume rating estimates over four surveys for persons 12+. For market education we used the 2006 American Community Survey by US Census for persons 25+.

MARKET ECONOMICS: Function Of Education

Economic Factors: Income And Occupation Drop Out When Controlled By Education

One hypothesis that pops up from time to time is that the performance of classical music stations is a function of market economics.

We looked at Census data for two measures of income: Per Capita Income and Median Household Income. We also looked at occupations in each market such as the Information industry and Professional/Scientific/Technical.

While each of those market economic variables does correlate with the performance of the classical format, they completely <u>drop out when we statistically control for market education</u> by using a technique called partial correlation.

After all, education leads to higher income and professional occupations.

In a separate analysis we looked at the age of a market's population. Age also drops out as a factor when we statistically control for market education.

Market Economic Variables That Correlate With Station Reach

.865	College Graduate 25+
.731	Occupation: Professional/Scientific/Technical
.706	Per Capita Income
.666	Median Household Income
.638	Occupation: Information

(Zero-Order Pearson's Coefficient)

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Market Economic Variables Do Not Correlate With Station Reach <u>When Education Is Controlled</u>

<u>Not Significant</u>	Occupation: Professional/Scientific/Technical
<u>Not Significant</u>	Per Capita Income
<u>Not Significant</u>	Median Household Income
<u>Not Significant</u>	Occupation: Information

MARKET RACE AND ETHNICITY: Not A Factor

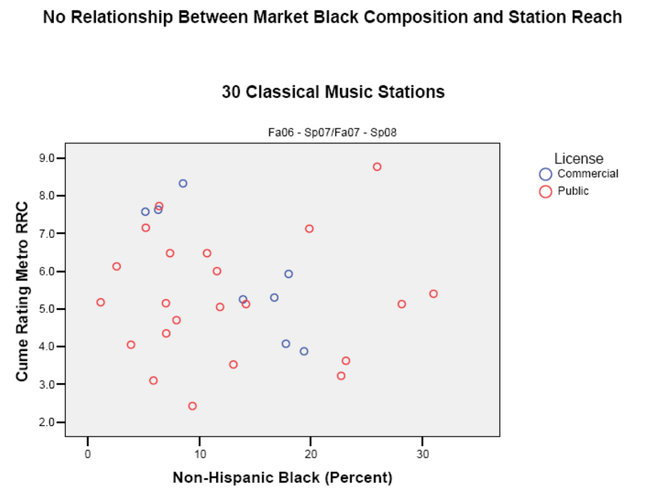
Racial/Ethnic Composition Of Market Population Does Not Explain Station Performance

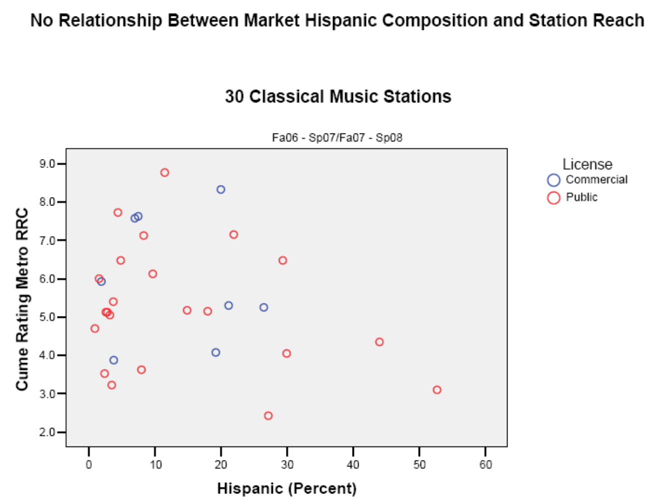
Some have speculated that classical stations will do less well in markets with a heavy composition of Black and/or Hispanic populations because they believe the format does not appeal to these listeners. Others note that some of public radio's largest Hispanic audiences are to classical stations and speculate that classical music stations might perform better in markets with higher percentages of Hispanic listeners.

Is there a relationship between a market's racial/ethnic composition and the performance of the classical format?

The answer is no. We found <u>no significant relationship between Black or Hispanic market composition and the cume rating of the classical station.</u>

In the upper chart, look at the markets with Black composition below 10 percent and see how the station reach still varies widely. The same pattern is true for the Hispanic chart below.





SECTION ONE: STATIONS AND MARKETS

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- **VALS™ Segments American Adults By Psychographic Values And Lifestyles**
- **VALS™ Market Composition Strongly Explains The Reach Of Classical Format**
- **Best Model Predicts Classical Station Cume Rating Based Solely On Market Education**
- **A Few Stations Under Or Over Perform Relative To The Model**
- **Looking Forward**

VALS™ PSYCHOGRAPHICS: A Brief Review

VALS™ Segments American Adults By Psychographic Values And Lifestyles

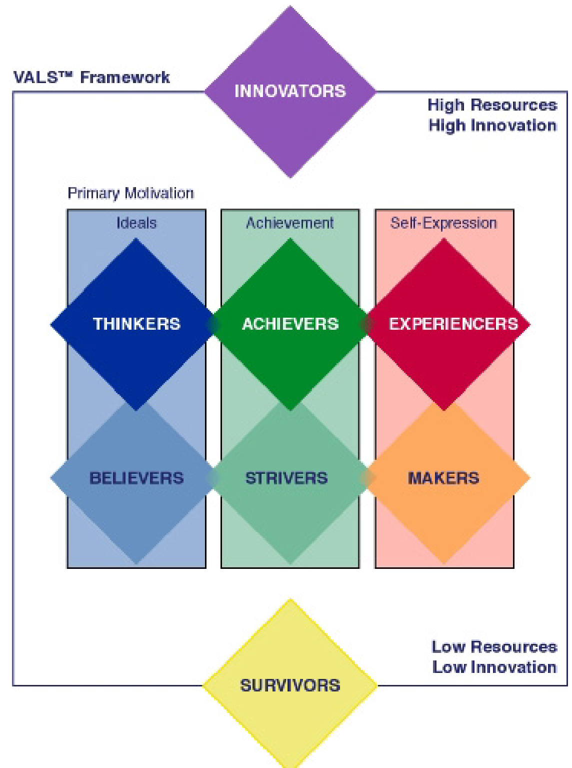
Audience 88 introduced public radio to VALS™, the segmentation system designed by SRI Consulting Business Intelligence. Listeners were assigned to segments based on their values and lifestyles, rather than simple demographics like age, race or sex.

Audience 98 found that public radio listeners, especially the core listeners who contribute money, were concentrated in two VALS segments – Actualizers and Fulfilleds. SRI has renamed those VALS segments as Innovators and Thinkers.

GeoVALS™ is a proprietary SRI system that estimates the distribution of VALS segments across geographical areas. We obtained VALS distributions for 50 Standard Metropolitan Statistical Areas, as of 2004.

Since the VALS data we worked with lump Baltimore in with Washington, DC, we do not have VALS data directly matching WBJC-FM or WETA-FM.

VALS™ places U.S. adult consumers into one of eight segments based on their responses to the VALS questionnaire. The main dimensions of the segmentation framework are primary motivation (the horizontal dimension) and resources (the vertical dimension).



VALS Framework reprinted with permission

To learn more about VALS, go to www.sric-bi.com/VALS, the website of SRI Consulting Business Intelligence, Menlo Park, CA 94025

VALS™ COMPOSITION: Station Reach

VALS™ Market Composition Strongly Explains The Reach Of Classical Format

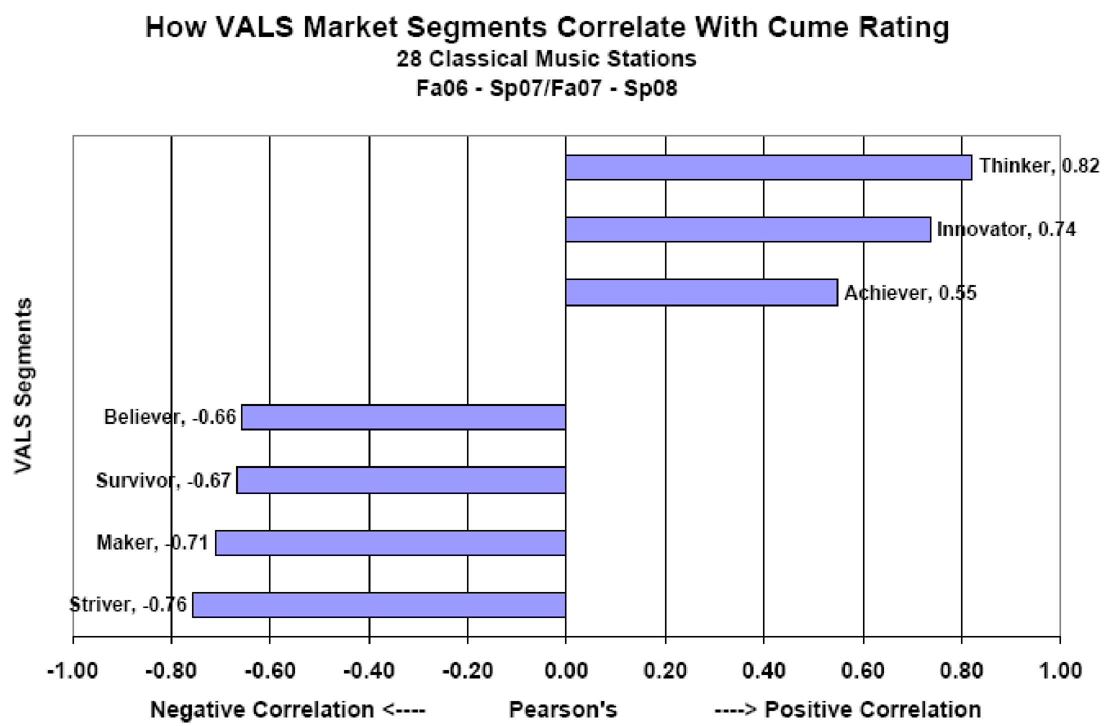
The top metro areas vary widely in their psychographic composition – the distribution of VALS segments among the market's adult population.

For example, in one large market nearly 40 percent of adults are Innovators or Thinkers. That is certainly fertile ground for classical music. Yet in another classical market only 17 percent of adults are Innovators or Thinkers.

Across 28 markets, we found that three VALS segments exhibit strong positive correlations with classical station cume rating: Thinker (.82), Innovator (.74) and Achiever (.55).

Four VALS segments exhibit strong negative correlations: Striver, Maker, Survivor and Believer.

The Experiencer VALS segment has no significant correlation with classical station performance and is dropped from further analysis in this report.



Figures show the Pearson's correlation coefficient between each market's composition of individual VALS segments and the cume rating of the classical music station.

To learn more about VALS, go to www.sric-bi.com/VALS, the website of SRI Consulting Business Intelligence, Menlo Park, CA 94025

REGRESSION MODEL: Beyond Education?

Best Model Predicts Classical Station Cume Rating Based Solely On Market Education

Multiple linear regression is a statistical analysis that generates an equation predicting a dependent variable (station performance) from several independent variables (market characteristics).

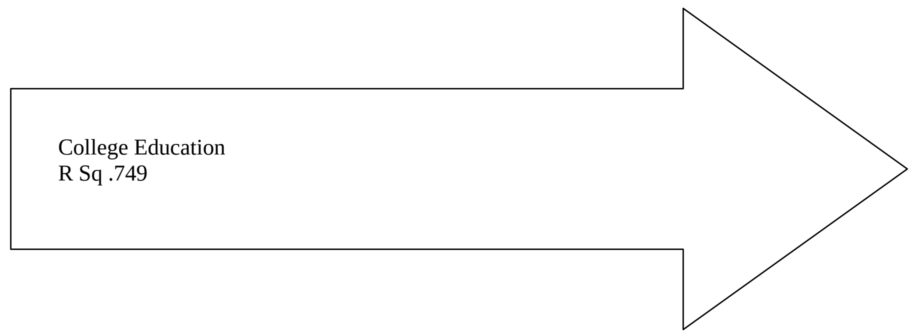
The best model identifies the fewest independent variables that together make the most powerful explanation.

The best model for classical music radio uses market education alone to predict station performance, explaining 75 percent of the variance among stations.

In our previous analysis of NPR news stations, we found that the best model consisted of market education, then competition for Morning Edition, and finally the market's VALS composition.

None of the classical stations have an in-format competitor. VALS did not add any predictive power. Neither did the type of operation – noncommercial or commercial.

CLASSICAL STATION PERFORMANCE
BASED ON MARKET CHARACTERISTICS
A Linear Regression Model



Figures show Model Summary statistics (R Square) for multiple linear regression equation predicting station cume rating.

Detailed statistical output available from Walrus Research.

PREDICTING PERFORMANCE: Most Stations Within Model

A Few Stations Under Or Over Perform Relative To The Model

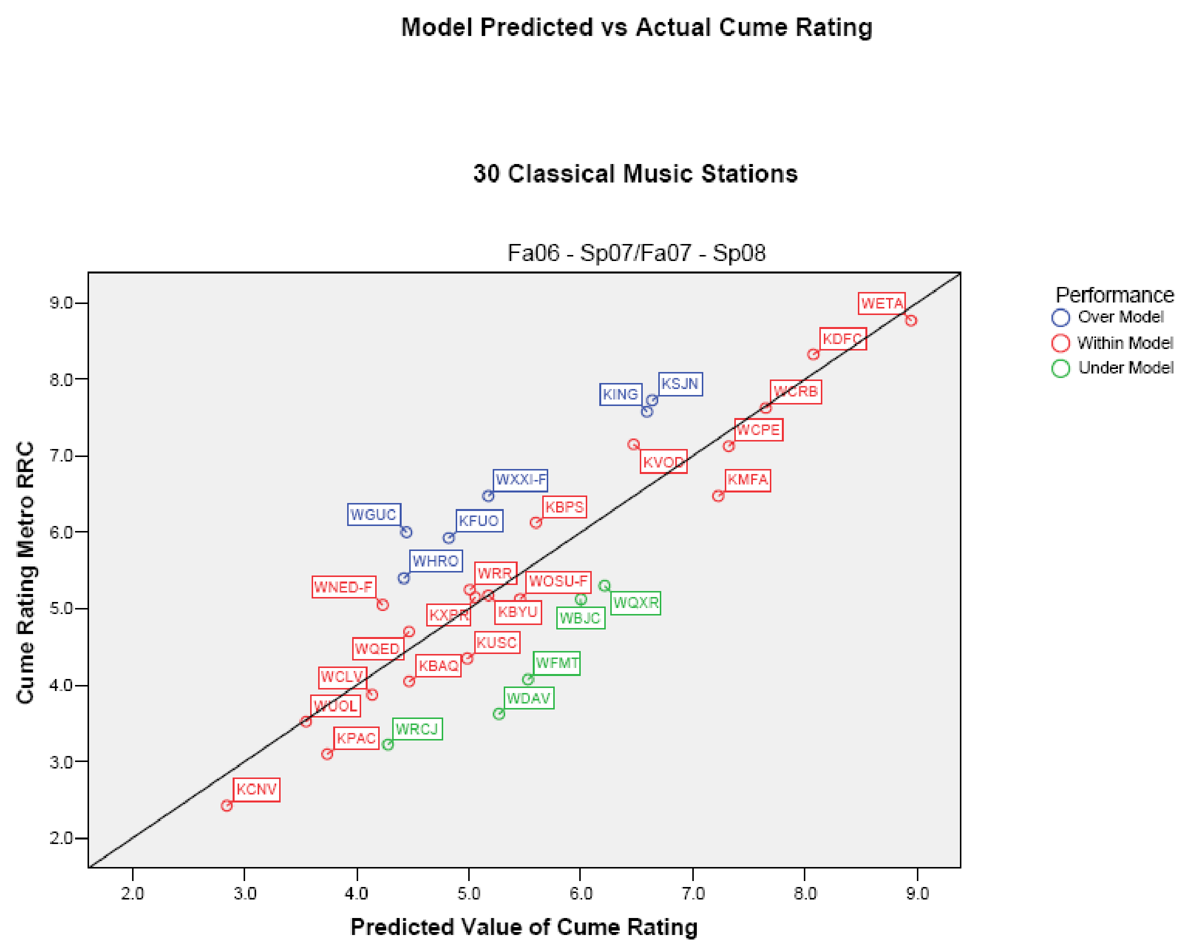
This chart shows the actual cume rating of each station vs the rating predicted by our regression model.

WETA Washington has the greatest reach and KCNV Las Vegas has the lowest reach, yet both fall close to the regression line – a prediction based on market education alone.

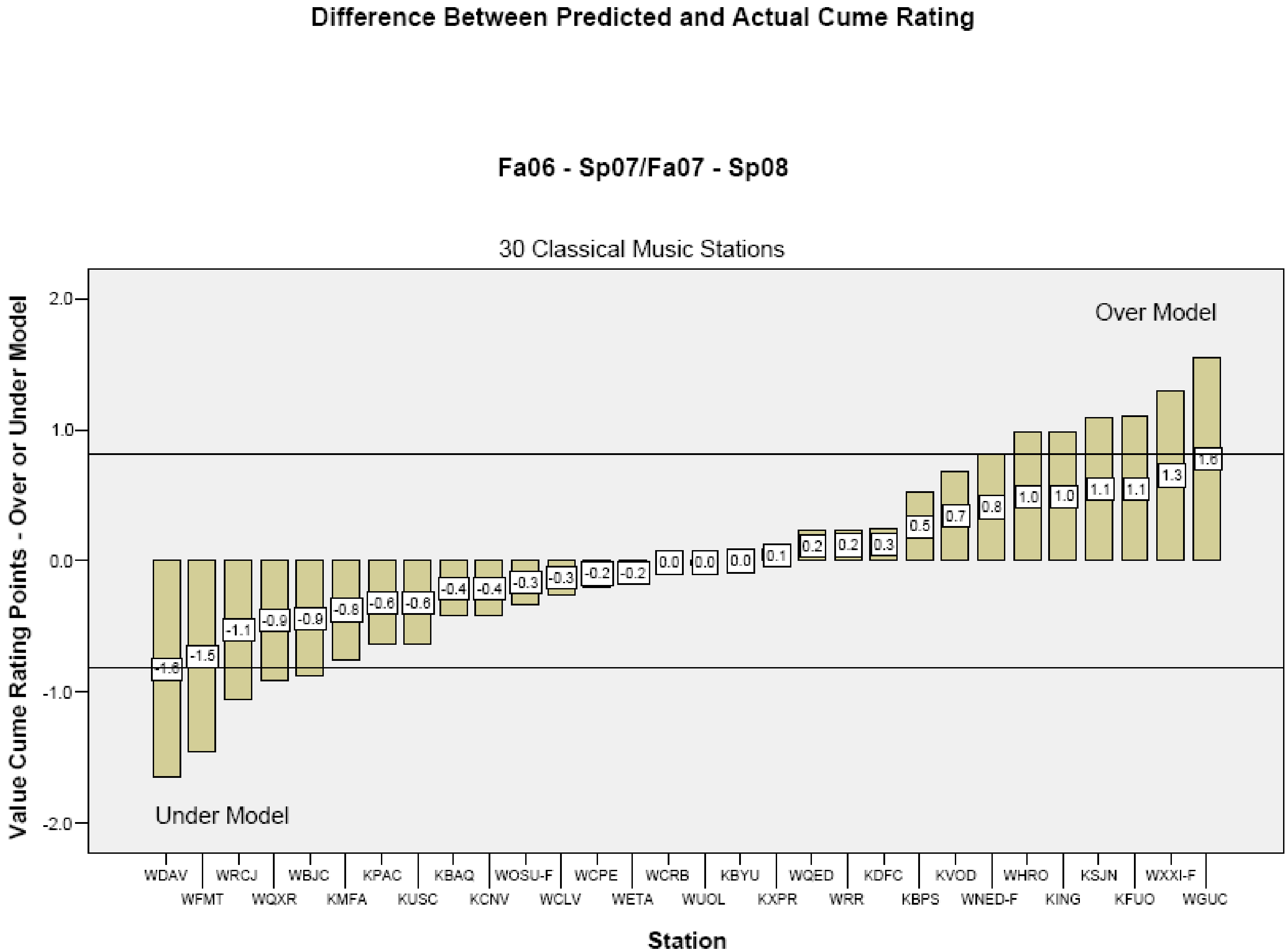
There are 6 over performers (more than one standard deviation) including WGUC Cincinnati and WXXI-FM Rochester. 2 of the 5 under performers are commercial stations.

Keep in mind that our linear model explains 75 percent of the variance, leaving 25 percent unexplained. Other factors under the station's control, such as programming or promotion, or factors outside their control, such as market characteristics, are not accounted for in this analysis.

The chart on the next page is another display of station performance.



PREDICTING PERFORMANCE: Over and Under



Looking Forward

We would not expect every station to perform exactly as predicted by the regression model. However, it may be useful to identify stations that perform significantly above the prediction.

Six stations – WGUC, WXXI-FM, KFUO, KSJN, WHRO and KING – achieve cume ratings that are more than one standard deviation above the predictive model. That translates to about 1 extra cume rating point.

KING and KFUO are commercial stations, although both are licensed to nonprofit organizations.

Several large markets do not have a full-time classical music station. KUHF in Houston, WUSF in Tampa and WABE in Atlanta broadcast dual formats of classical music and NPR news.

Using the regression model based on the market's level of education, we would predict the following ratings for a full-time classical music station:

Classical Format Prediction

Atlanta	5.1 – 6.8 cume rating
Tampa	3.7 – 5.3 cume rating
Houston	3.2 – 4.8 cume rating

Other large markets without a full-time classical music station (and their market ranks) are Kansas City (32), Orlando (34), Milwaukee (36), Providence (39), Indianapolis (40) Nashville (44), Greensboro (45), West Palm Beach (46), Jacksonville (47), and Memphis (49).

Finally, keep in mind that we designed this analysis on the level of stations and their respective markets. We looked at the share and reach of the classical music station, explained by the qualities of each market in terms of its population.

That level of analysis is appropriate for strategic policy discussions.

Audience 98 and the *Public Radio Tracking Study* were designed to analyze the behavior of <u>individual listeners</u>. The research questions for *A98* and the *Tracking Study* were: What individual characteristics predict listening to public radio? And which individuals will send money to public radio?

On the individual level, VALS is still an extremely powerful explanation for why certain people do listen to public radio and why certain listeners send money.

Giving to public radio is driven by personal importance, which can be understood in terms of the individual listener's world view.