Discrimination and Media Diversity: Historical Evidence from U.S. Radio Stations

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Black-oriented Radio

- Research question: does firm-owner discrimination affect the firm’s programming decisions?
- Context: Black-oriented radio stations in post WWII US
- This project:
  - Derive a test for firm-owner discrimination: white owners leave money on the table by not catering towards African American audiences
  - Provide evidence of firm-owner discrimination: significant levels of Black-oriented content are correlated with higher profits
- Takeaway: incorrect beliefs/taste-based discrimination affect positioning (in addition to hiring) decisions, and this could lead to worse firm performance
Emergence of Black-oriented radio
Historical context

• In 1948, WDIA in Memphis, Tennessee became the first station to devote all its air-time to Black-oriented programming
• In mid 1950s, 20% of all radio stations had some Black-oriented programming
  • First time widespread Black-oriented content in American broadcast media
• Policy environment: FCC encourages competition and localism
• Almost all white owners
• Similar to general-audience (i.e. white-oriented) radio in format
• Difference: target audience and advertisers
  • Historically, consumer preference was closely associated with race (e.g. market for popular music)
Tests for discrimination

  - Look not just at the rate of decision, but also the success rate of those decisions
  - “If banks discriminate against minority applicants, they should earn greater profits on the loans actually made to them than on those to whites”
- Equivalent test in the media market: do firms choose programming that maximize their profit, irrespective of its race-orientation?
- Challenge: firm profitability is a function of other firms’ choices
  - Solution: free-entry equilibrium (FCC policies promoted competition)
Test for firm-owner discrimination

- Firm j’s payoff function for entering into the market m with format f is:

\[ V_f(N_B, N_W) = R_f(N_B, N_W; X_m) - FC_{mf} - EC_{mf} \]

- Free-entry equilibrium - firms enter until it becomes unprofitable for the marginal entrant

\[ R_W(N_B, N_W + 1, X_m) - FC_{mW} < EC_{mW} < R_W(N_B, N_W, X_m) - FC_{mW} \]
\[ R_B(N_B + 1, N_W, X_m) - FC_{mB} < EC_{mB} < R_B(N_B, N_W, X_m) - FC_{mB} \]

- If Black-oriented vs. white-oriented radio has different profitability, then they could have different entry cost (including non-pecuniary cost)
  - Possible to apply when both types exist
- Proposed test: does profitability differ by format after including market-level fixed effect
Related literature

- Two broad strands of literature: media markets and racial discrimination
- Radio: Berry and Waldfogel (1999a), Berry and Waldfogel (1999b), Berry and Waldfogel (2001), Siegelman and Waldfogel (2001), Waldfogel (2011), Berry et al. (2016a), Berry et al. (2016b), ...
  - Closely related to Berry et al. (2016) that looks at bias against preference minorities in 2005
Data

- **Broadcasting Yearbook**: industry magazine used as a source of information for station owners and advertisers
  - Annual directory of AM and FM radio stations across the US
  - Annual list of “Stations with Negro Programming and Total Weekly Hours” (starting from 1956 Yearbook)
  - Annual list of “Stations Broadcasting Foreign Language Programs with Total Weekly Hours” (starting from 1956 Yearbook)
- **FCC Annual Financial Reports**: station-level income statements
- **Sponsor**: magazine for advertisers
  - self-reported % of total business from Black-oriented advertisers
- Census data
- Electoral data
# WDIA 1955 Annual Financial Report

## SCHEDULE 1: ANALYSIS OF STATION BROADCAST REVENUES

<table>
<thead>
<tr>
<th>Line No.</th>
<th>Class of Broadcast Revenue</th>
<th>Amount ($)</th>
<th>Amount (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td>Revenue from the sale of station time</td>
<td>16,182.22</td>
<td>29.44</td>
</tr>
<tr>
<td>3</td>
<td>Network -</td>
<td>16,182.22</td>
<td>29.44</td>
</tr>
<tr>
<td>4</td>
<td>Sale of station time to networks (before line of service charges)</td>
<td>16,182.22</td>
<td>29.44</td>
</tr>
<tr>
<td>5</td>
<td>Sale of station time to regional networks (before line of service charges)</td>
<td>16,182.22</td>
<td>29.44</td>
</tr>
<tr>
<td>6</td>
<td>Sale of station time to affiliated stations (before line of service charges)</td>
<td>16,182.22</td>
<td>29.44</td>
</tr>
<tr>
<td>7</td>
<td>Total (Lines 4 - 6)</td>
<td>16,182.22</td>
<td>29.44</td>
</tr>
<tr>
<td>8</td>
<td>Non-network (all-trades discounts but before commissions to agencies, representatives, and brokers, or cash discounts to advertisers and others)</td>
<td>16,182.22</td>
<td>29.44</td>
</tr>
<tr>
<td>9</td>
<td>Sale of station time to national and regional advertisers or agencies</td>
<td>16,182.22</td>
<td>29.44</td>
</tr>
<tr>
<td>10</td>
<td>Sale of station time to local advertisers or agencies</td>
<td>16,182.22</td>
<td>29.44</td>
</tr>
<tr>
<td>11-12</td>
<td>Total for Lines 8 and 9</td>
<td>16,182.22</td>
<td>29.44</td>
</tr>
<tr>
<td>13-14</td>
<td>Transcriptions and recordings</td>
<td>248.79</td>
<td>0.44</td>
</tr>
<tr>
<td>15-16</td>
<td>Technical expenses</td>
<td>248.79</td>
<td>0.44</td>
</tr>
<tr>
<td>17-18</td>
<td>Program expenses</td>
<td>248.79</td>
<td>0.44</td>
</tr>
<tr>
<td>19-20</td>
<td>Selling expenses</td>
<td>248.79</td>
<td>0.44</td>
</tr>
<tr>
<td>21-22</td>
<td>General and administrative expenses</td>
<td>248.79</td>
<td>0.44</td>
</tr>
<tr>
<td>23-24</td>
<td>Total broadcast expenses</td>
<td>248.79</td>
<td>0.44</td>
</tr>
<tr>
<td>25-26</td>
<td>Selected expense items (Subtotals of Lines 2 - 24)</td>
<td>248.79</td>
<td>0.44</td>
</tr>
<tr>
<td>27-28</td>
<td>Salaries and wages, including supervision</td>
<td>248.79</td>
<td>0.44</td>
</tr>
<tr>
<td>29-30</td>
<td>Reproduction and stationery</td>
<td>248.79</td>
<td>0.44</td>
</tr>
<tr>
<td>31-32</td>
<td>Music expenses</td>
<td>248.79</td>
<td>0.44</td>
</tr>
<tr>
<td>33-34</td>
<td>Transcriptions and recordings</td>
<td>248.79</td>
<td>0.44</td>
</tr>
<tr>
<td>35-36</td>
<td>Cost of interest and internally program related interest</td>
<td>248.79</td>
<td>0.44</td>
</tr>
<tr>
<td>37-38</td>
<td>Cost of new service (other than salaries)</td>
<td>248.79</td>
<td>0.44</td>
</tr>
<tr>
<td>39-40</td>
<td>Salaries and wages relating to program work</td>
<td>248.79</td>
<td>0.44</td>
</tr>
<tr>
<td>41-42</td>
<td>Depreciation and income fees relating to program work</td>
<td>248.79</td>
<td>0.44</td>
</tr>
</tbody>
</table>

Note: If a joint report is made, please indicate below what amount, if any, of total broadcast revenues is applicable separately to the No station, see section 1.
Map of Stations with some Black-oriented programming
Programming and Black-oriented advertisers

- Black-oriented advertisers: e.g. investment company, poultry market, drug store, theaters, liquor, beauty shop...
Fact 1 - significant Black-oriented programming correlated with significantly higher profit

- Apply the test with market-level FE
- Effect is large: 1955 median profit for a radio station was $7,000 and median income for men was $3,400
Fact 2 - similar pattern not observed for foreign language programming

- Foreign-language programming is another niche market that can be identified by demographic information.
- No relationship for both pooled and individual languages.
Market-level measure of racism: Dixiecrat vote share

- Use market-level % of votes for the States’ Rights Democrat (Dixiecrat) candidate Thurmond in the 1948 presidential election
- Left the democratic party in order to support racial segregation in the South
- Won Louisiana, Mississippi, Alabama, and South Carolina
- Kuziemko and Washington (2018): conservative racial views strongly predict Democratic Party identification in the South
Fact 3 - higher profit residual in more racist markets

- Sub-sample of markets with non-zero Dixiecrat vote share
- Include market FE's, and hours interacted with controls for demographics

<table>
<thead>
<tr>
<th></th>
<th>(1) Annual Profit ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours of Black-oriented Programming</td>
<td>-393.5 (939.0)</td>
</tr>
<tr>
<td>Hours of Black-oriented Programming × 1948 States' Rights Democratic Party vote share</td>
<td>3.433 (1.806)</td>
</tr>
<tr>
<td>Market FE</td>
<td>YES</td>
</tr>
<tr>
<td>Demographics</td>
<td>YES</td>
</tr>
<tr>
<td>Observations</td>
<td>282</td>
</tr>
</tbody>
</table>

Standard errors in parentheses
Summary of empirical findings

- Radio stations that had significant Black programming generated higher profit than their counterparts.
- The results are consistent with firm-owner discrimination – taste-based or incorrect beliefs.
Contributions

- This paper:
  - Provides evidence that media firm owners are leaving money on the table
  - Consistent with taste-based discrimination or incorrect beliefs
- Large impact for firm profitability and availability of content for minorities in broadcast media
- Next steps: digitize and create a 20-year panel (TBC after National Archives re-opening)