Amplifying Our Voice: Leading Boldly for Our Students, Our Professions, and Our Union

Modeling Our Future: Tools for Strategically Targeting Member Engagement

Stacey Pelika and Jason Burns
COMPETENCY: ORGANIZING

• Level 2: Mobilizing & Power Building

• Organizing Competency Theme
  • Makes strategic plans that rely on data and analysis to set and achieve key organizing objectives (CT3)
• NEA Strategic Goal: Building the capacity of the local, state and national union to ensure the success of public education.

• NEA Organizational Priority: Early Career Educators
What is a predictive model?
How is a predictive model built?

1. Historical Data → Predictive Algorithms → Model

2. New Data → Model → Predictions
What does the NEA Drop Model do?

• Provides an individual-level prediction of whether a member will drop membership using a score that ranges from 0-100.

• A score of 100 means that a member will absolutely retain their membership. A score of 0 means that a member will absolutely drop their membership.
How was the model created?

1. **Survey Response Data**
   - Self-reported data which sourced the dependent variable

2. **NEA Membership Data**
   - Member type and status, years as a member, local

3. **Transaction Data**
   - PAC donations, field IDs, volunteer data, petition signatures, role data

4. **Voter File Data**
   - Vote history, party affiliation data, political district data, subscriptions, income

5. **District and Geographic Data**
   - Census, ACS, and school district data
Percentiles vs. Model Scores

Drop Model Distribution

Count of Members

Drop Model Score

0 10 20 30 40 50 60 70 80 90

Drop Model Percentile Distribution

Count of Members

0 10 20 30 40 50 60 70 80 90
Drop Model Report Card

- Each former state has been given a report card to provide a high-level view of how the model performs in their state.
Drop model score validation: Self-reported

• The score is validated with self-reported data and live membership data.

• Massachusetts conducted a member outreach program where they asked 15,000 members whether they intended to remain in the union.
Drop model score validation: Membership Drops

- Drop codes for ‘dissatisfied members’
  - Cost of Membership Too High
  - Disagree - Politics/Philosophy/Policy
  - Dissatisfied with Services
  - Former Feepayer - Janus
  - Financial/Financial Reasons
  - Joined Competing Organization
  - Member Requested Cancellation
  - Voluntarily Resigned

<table>
<thead>
<tr>
<th>Drop Model Median Percentile Ranks for Members Who Dropped Aug. 31, 2018 - Nov. 27, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissatisfied Members (N=12,777)</td>
</tr>
<tr>
<td>Other Drops (N=49,569)</td>
</tr>
<tr>
<td>Members Who Stayed (N=1,693,596)</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>20</td>
</tr>
<tr>
<td>40</td>
</tr>
<tr>
<td>60</td>
</tr>
<tr>
<td>32</td>
</tr>
<tr>
<td>44</td>
</tr>
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<td>50</td>
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Drop model score validation: Membership Drops

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Distribution of Drop Model Scores for ‘Dissatisfied Members’ Who Dropped 8/31/18-11/27/18

- Min = 0
- Q1 = 13
- Median = 32
- Q3 = 59
- Max = 99
How is a predictive model built?

1. Historical Data → Predictive Algorithms → Model

2. New Data → Model → Predictions
NEA Drop and Join Model Phases

**NEA Drop Model v1.0**
Available for Professional & ESP members in Agency Fee States with model updates as feasible

**NEA Drop Model v2.0**
Available for Professional & ESP members in Non-Agency Fee States in early 2019

Exploring model for higher education professional members

**NEA Join Model v1.0**
Nationwide model score available for any individual that predicts a person's *propensity to join NEA*

**Phase Four**
Consistent updates of models in all states
Aggregated Targeting and Individual Targeting

AGGREGATED TARGETING
• Average score by Uniserv or Local
• Create rank order to assess drop risk
• Allows decision making to increase resources for at-risk locals

INDIVIDUAL TARGETING
• Filter or “bucket” workers for contact
• Tailor conversation to risk level
• Recorded conversations improve future iterations of the model
Ranking of Worksites within Local

- Balance Average Score with the number of members
- Compare locals to district average
- Aggregate targeting can be used to compare scores within State or Uniserv district. It cannot be used to compare locals across state lines

<table>
<thead>
<tr>
<th>Affiliate</th>
<th>Average Score</th>
<th>Member Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Franklin High</td>
<td>73.525</td>
<td>227</td>
</tr>
<tr>
<td>Franklin Middle</td>
<td>52.189</td>
<td>156</td>
</tr>
<tr>
<td>Keller Elem</td>
<td>42.662</td>
<td>64</td>
</tr>
<tr>
<td>Center Middle</td>
<td>35.941</td>
<td>164</td>
</tr>
<tr>
<td>Monterrey Elem</td>
<td>34.929</td>
<td>24</td>
</tr>
<tr>
<td>Goldman High</td>
<td>19.797</td>
<td>184</td>
</tr>
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# Goldman High Worksite Roster

<table>
<thead>
<tr>
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<th>Subject</th>
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<tr>
<td>Kathy</td>
<td>Gregory</td>
<td>Science</td>
<td>98</td>
</tr>
<tr>
<td>Daniel</td>
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<td>English</td>
<td>75</td>
</tr>
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Engaged Members

• Likely active or respond to local
• Least Likely to Drop

Conversation: Event invite
Contact Type: Less resource intensive

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High Risk Members

- Highest risk of dropping
- Often due to less contact/engagement
- Risk of becoming anti-leaders

Conversation: Persuasion
Contact Type: Worksite Visit

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## Mid Score

- Intermittent engagement or mixed data
- May drop, or may be planning to retain. *We don’t know.*
- Highly Persuadable

### Conversation:
Commit to Union ID -> Persuasion If Needed

### Contact Type:
Worksite or Home Visit

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Scenario 1: Worksite Targeting

The Freedom Foundation sent flyers to all members of the local. A member reported that a family friend asked them if they would be interested in joining a canvass encouraging educators to leave their union starting next week.

You have the ability to target three worksites in the next week. Which do you choose? Rank your choices.
Scenario 2: Retention Campaign Planning

Reports of other locals under attack across the state are increasing fast. While you were expecting outside assistance, resources have been redirected. You now have two staff and three worksites to visit on the same day – and its three days away!

You have worksite rosters appended with the Drop Model Score for each worksite.

How do you avoid cancelling and plan successful worksite visits at all worksites on the same day?
Key Contacts

Affiliate intake

• Genny Mayhew: gmayhew@nea.org

Project management

• Karen White: kwhite@nea.org
• Kris Garcia: kgarcia@nea.org
• Stacey Pelika (modeling): spelika@nea.org
• Anitra Speight (messaging): aspeight@nea.org
Session Outcomes

The content from this session can be used in the following ways in your current position/role:

• You have a basic understanding of how to use predictive models in organizing work

• You have an understanding of the NEA drop model and how to access and apply model scores in a state or local affiliate

• You know who to contact if you would like to use drop model scores and/or need additional support
Closing

• Please complete the evaluation for this breakout session by using the NEA Summit Mobile App!

• Please visit the Leadership Development Resources website at www.nea.org/leadershipdevelopment