"New Opportunities in Data Application"

The College of Education at Minnesota State Mankato
One of the important opportunities facing both educators and education researchers is full utilization of school performance data that is already available.
The College of Education at Minnesota State Mankato is…

- Looking for new ways to use MCA-II data in an effort to identify effective schools across the state and the practices these schools are implementing that impact student achievement.
Current use of MCA-II data…

- To determine Adequate Yearly Progress (AYP) for the purpose of meeting the requirements of NCLB Federal mandate
Using MCA-II data in a new way...

- To reexamine the statistical relationships between recorded demographic variables and school test performance
We looked at the following demographic variables … the percentage of

<table>
<thead>
<tr>
<th>Students receiving Special Education Services</th>
<th>Students eligible for LEP services</th>
<th>Students who were NOT enrolled in the school as of Oct 1 (Mobility)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Students eligible for free/reduced lunch (SES)</td>
<td>Non-White Students</td>
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For the purpose of...

...Expanding the “Toolbox "of educators with ideas and techniques that are relevant and effective to school’s specific demographic context
Demographic characteristics were related significantly to most achievement outcomes.

(Sherman, 2006)
Students generally do less well if they attend a school where the majority of students are from disadvantaged circumstances. (US Education Dept. 1998)
Striving to answer...

What demographics are significantly related with school performance?

How accurately can we predict school performance using demographics?

Most important...Are there schools who are performing significantly higher than their demographics would suggest?
Keep in mind…

- This study is **NOT** intended to suggest limits on potential school performance due to demographics
- This study **IS** an effort to put current data (MCA-II test scores and demographics) to use in a new way to eventually help create a “larger toolbox” of ideas and techniques for student/school success
Findings

- Correlation - All six demographic variables were significant, but...

Socio Economic Status - highest

NonWhite
Important to note...

- We used the statistical tool of regression analysis to generate projections of test scores based on key demographic variables.
- The projections generated were accurate projections and close to actual scores for most of the schools throughout the state.
The correlation between the score a school received on the Math portion of the MCA-II test and the percentage of students eligible for free/reduced lunch is the highest of all demographic variables ($r=-.700$).
The correlation between the score a school received on the Reading portion of the MCA-II test and the percentage of students eligible for free/reduced lunch is the highest of all demographic variables ($r = -.774$).
Also important to note...

- We projected scores for all Minnesota schools, grades 3, 7, 10 and 11
- The projections generated were accurate projections and close to actual scores for most of the schools
- This was true for all of the grade levels included in the study, grades 3, 7, 10 & 11
Regression Analysis

- Socio Economic Status
- Mobility
- Special Education

Consistently most important and strong predictor of school performance
Findings

- Socio Economic Status
  - proves to be most important factor and is highly correlated with NonWhite

- Class (SES), not Race
  - Regression shows it is class, not race that is overriding factor in student success
Are there schools who are performing significantly higher than their demographics would suggest?

We were able to identify a subset of schools who are performing two standard deviations above projected MCA-II scores.
Why is this important?

- By exploring “over performing” schools we now have the opportunity to study what they are doing and provide insights to schools with similar demographics.

- Through this study we can support schools in expanding their “toolbox” with relevant practices and programs in the context of their demographics.
What we are striving to find…

Commonalities of schools that are scoring significantly higher than their predicted demographics
Critical Case Studies

- Visit schools
- Gather data
- Identify commonalities
We will gather data in areas such as…

- School leadership/Teacher excellence
- Use of data/variety of assessments
- School culture
- Instructional strategies/Curriculum
- Collaboration with Colleagues
- Partnerships with families and communities
- Professional development
- School structures such as length of school day, length of school year, extended day programs, etc.
WHAT THIS MEANS FOR P-12 SCHOOLS…
Impact

- Identified Common Practices

- Reduce Impact of Demographic Variables

- Increased Student Achievement
Sharing Results

- Results of our study on schools outperforming their demographics will be shared via MNSU College of Education website through “Maverick Insights”.
Contact Information

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