

# COUNSEL

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NEWS AND IDEAS ABOUT COMMUNITY COLLEGE MARKETING AND PUBLIC RELATIONS

**Finding Value in  
GIS Technology  
for Your  
Marketing Research**

The logo for the National Council for Marketing & Public Relations (ncmpr). It features the lowercase letters "ncmpr" in a white, serif font, with a thin horizontal line underneath. Above the letters is a curved orange and red arc. Below the letters, the full name "National Council for Marketing & Public Relations" is written in a smaller, white, sans-serif font.

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# Finding Value in GIS Technology for Your Marketing Research

Marketing, enrollment and institutional research professionals in higher education can now add a new tool to their market research efforts – Geographic Information Systems (GIS) technology.

At McHenry College, GIS technology was used to create visual snapshots that explained five years of student enrollment data collected through basic and applied market research methods. With ongoing application of GIS technology, the college has seen impressive results. We have gained a better understanding of our student populations, refined our marketing strategies, reallocated resources, and achieved our recruitment goals.

The process began in the fall of 2000 when I joined McHenry College as director of marketing and public relations. Enthusiastic about my new job, I was eager to learn more about the college. As my knowledge grew, so did my list of questions:

- **Who** were McHenry College students and where did they live?
- **What** demographics and consumer traits did these student households share in common, or how did they differ?
- **Where** could the college find prospects similar to existing students to grow its enrollment?

It was my belief that if we could accurately identify and label our current students and group them into market segments, we could then improve our ability to attract more like them. If so, we could improve so-called conversion rates (from prospective student to actual student) and increase the overall return on our marketing dollars. Clearly, this was an opportunity for niche marketing using market segmentation strategies.

Where to begin? Informal discussions with deans, department chairs and program coordinators yielded anecdotal information that was useful but not quantifiable. Institutional research at that time monitored credit and adult education students and focused on the required reports to meet state requirements. Again, the information was useful but incomplete.

To get to the heart of the “Who” “What” and “Where” questions, the college initiated a market segmentation study combined with GIS technology. Ultimately, the college learned a great deal about its students and the community it serves.

## Step 1: Identifying Where Current Students Live

To start, we took one year of enrollment data and looked specifically at student address fields (student ID number, name, street address, city, state, ZIP). To those records, the college applied geographic longitude and latitude coordinates using a process called geocoding, which then allowed us to display the individual student addresses as dots on a geographic map of our service area. (See Figures 1-A and 1-B.) The dots created visual clusters that depicted where groups of enrolled students lived. ZIP codes, postal carrier routes and census blocks could then be overlaid on the maps to provide context. City or municipal boundaries, voting districts, and school districts were other options that could be displayed.

## Step 2: Applying Demographics and Consumer Traits to Current Students

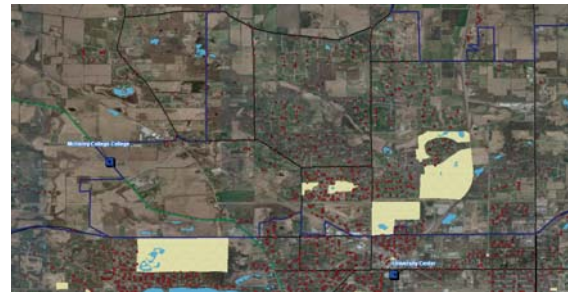
Next, we wanted to apply demographic profiles and consumer characteristics (psychographics) to each student record. We used consumer data from a company called Claritas, which had developed a sophisticated set of consumer “clusters” based on household data. This data, when appended to each student record, enabled us to tag each dot in our cluster map with a specific household profile, including consumer characteristics. When we incorporated that information in our maps, we learned that our credit students were comprised of 12 key consumer clusters, and our noncredit students were comprised of 10 key consumer clusters. While there was some overlap between the two programs, there were significant differences among students in terms of life stages and social groups. In this way, we were able to more clearly identify the types of individuals who were most likely to enroll at McHenry.

## Step 3: Looking at Five Years of Cumulative Enrollment Data

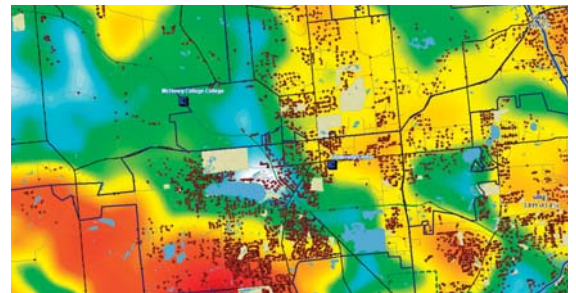
After examining one year of student enrollment data, we realized that we didn’t have a complete picture because many of our students do not attend consecutive semesters. So we began to look at five years of cumulative student enrollment data, while still maintaining the ability to isolate a specific year for further study, if desired. (See Figure 2.)

## Step 4: Finding Prospective Students with Similar Traits as Current Students

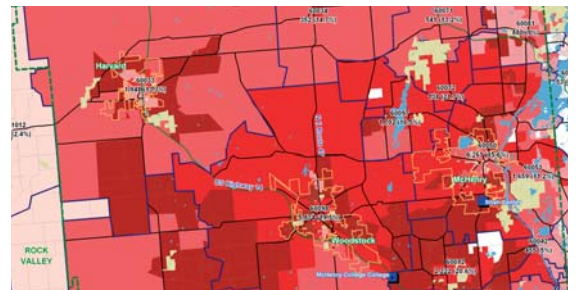
With a good understanding of our current students, we were now ready to identify area residents who have not taken classes at McHenry but who shared a lot in common with our current students in terms of geography, demographics and household characteristics. Once identified, these would become the groups we would target in our marketing efforts. In essence, we believed that these prospects would yield the best results when it came to our bottom line – enrollment.



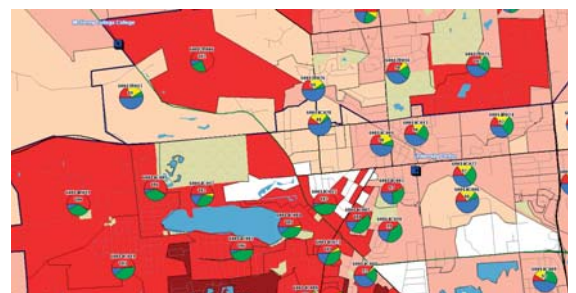
**Figure 1-A:** GIS employs a process called geocoding to append geographic longitude and latitude coordinates to data points. In this detail from a larger map, student addresses are shown as dots on a cluster map using satellite imagery as a backdrop.



**Figure 1-B:** The same student addresses shown on a thematic background to represent residential growth within a service area.



**Figure 2:** A thematic map showing market share/penetration, the percentage of population served through enrollment at McHenry College.



**Figure 3:** Market segments using enrollment data identify core (red), conversion (green), expansion (yellow) and nontarget (blue) market segments within your residential population.

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# GIS Technology

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In this step we employed a form of market study called “Market Potential Index.” It gets a bit complicated, but this is where we used the household profile data in our student enrollment reports and compared that with the current residential population. We tagged each of the consumer clusters with one of four labels: 1) core – those residents that shared the most characteristics with current students; 2) conversion – those who might be underserved and not well represented at the college; 3) expansion – those who present new opportunities for recruitment and outreach; and 4) nontarget – those who shouldn’t be discounted entirely but who represent small numbers of the current student or residential population. Those in the “core” group became our primary target. This is where we believed we would get the highest return for our marketing dollars.

## Step 5: Designating Direct Mail Routes and Other Media

In this final step, we overlaid information from the Market Potential Index study on a map showing our current market share and used pie charts for each

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postal carrier route. Viewed this way, it’s a quick read to determine which geographic areas contain the highest concentrations of our primary target group – prospects that share household characteristics with current students. (See Figure 3.) We use this information to determine strategies for where to distribute course schedules and implement other direct mail campaigns. Using GIS coordinates, we also can determine which local daily newspapers, broadcast outlets and even outdoor billboards to use to best reach our target group. And the best part is after mailings go out or a media campaign is launched, we can easily track the results and show where new “customers” are coming from.

## The Results

Using GIS technology has helped us accomplish three important things. First, we are now able to focus our direct mail campaigns on prospective students that share similar characteristics with our current students and are, thus, more likely to enroll. Second, we have come to more clearly recognize the differences between our credit and noncredit students and target our mailings accordingly. And finally, we have reallocated our marketing resources and saved money.

Before all this, we were shooting from the hip when it came to allocating our marketing dollars. Over a period of four years, we have saved many thousands of dollars in printing and postage costs for our class schedules alone. We used to print a total of 15 credit and noncredit course schedules each year, with a circulation of about 120,000 pieces each time. Today, we are printing a total of nine schedules with print runs of about 65,000 to 70,000 each. And in spite of these reductions, enrollments, once flat, have consistently increased each year.

By using GIS technology, we can provide snapshots of our student enrollment data, provide easy-to-read visuals for our campus decision-makers, and get the buy-in we need to effectively allocate our marketing dollars. It’s no longer a matter of producing large quantities of printed materials and flooding the market with saturation mailings. It’s a matter of targeting households that are most likely to respond to our call for action.

## Advice to Others

For those interested in applying GIS technology to your market research, several suggestions come to mind. First, start with a project of a reasonable scale and with clearly defined objectives. Then, develop a strategy for meeting those objectives. It’s important to bring in key stakeholders at the start of the project. They can serve as your first line of defense when critics surface – and surely they will. Most importantly, start your research today and be persistent and systematic in your work. You’re not going to solve all of your marketing mysteries overnight.

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