Inside IR

The 2010 Census caused New York State to lose two congressional seats and redraw congressional district lines.

Regardless of county, the area shown on this map indicates that 80% of our students live in the 25th district, 9% live in the 27th district, and 5% live in the 24th district.

New Congressional Districts

As a result of the 2010 Census, New York State lost two congressional seats. This decreased the total number of representatives from 29 to 27. It also precipitated the formation of new congressional districts.

With the 2012 election so close, IR thought it would be interesting to investigate the impact of the new local districts because two of them, the 25th and 27th, cover Monroe County.

The map presented here shows Monroe and the adjacent counties, and how the new congressional districts are superimposed on top of them.

As illustrated, the 25th district encompasses 17 of Monroe County's 21 towns. The 27th district covers the remaining four towns.

The table presented here shows MCC's student enrollment according to our census file.

As illustrated, 82% of our students reside in Monroe County, 80% in the 25th district, and 2% in the 27th district. The remaining 18% reside outside Monroe County.

Fall 2012 MCC Enrollment by Town

Town	District	# Students	% of Total
Brighton	25	573	3.3%
Chili	25	615	3.6%
Clarkson	25	98	0.6%
East Rochester	25	112	0.6%
Gates	25	662	3.8%
Greece	25	1,926	11.1%
Hamlin	27	125	0.7%
Henrietta	25	968	5.6%
Irondequoit	25	958	5.5%
Mendon	27	117	0.7%
Ogden	25	379	2.2%
Parma	25	310	1.8%
Penfield	25	590	3.4%
Perinton	25	651	3.8%
Pittsford	25	289	1.7%
Riga	25	96	0.6%
Rochester	25	4,605	26.6%
Rush	27	54	0.3%
Sweden	25	146	0.8%
Webster	25	831	4.8%
Wheatland	27	75	0.4%
Outside Monroe		3,116	18.0%
Total		17,296	100%

College Readiness and Three-Year Graduation

Three-Year Graduation Rates by College Readiness Group

Readiness	# Students in Study	Grad Rate
College Ready	2,429	37.9%
Risk Level 1	4,328	26.9%
Risk Level 2	3,723	11.3%
Total	10,480	23.4%

An IR study of first-time, full-time, degree-seeking students in fall 2005, 2006, and 2007 revealed variables associated with grad rates.

SAT Scores
Students who provided SAT scores were twice as likely to graduate within three years as those who did not have SAT scores in Banner.

College Readiness
Among the students ready for college algebra when they started at MCC, 37.4% graduated within three years; only 23.8% of those ready for other math courses graduated within that time. Note that 50% of the students in our study were in the latter group and, therefore, drive MCC's graduation rates.

Placement in the developmental English course TRS101 is associated with a lower chance of graduating within three years. However, only 6% of the students in the study were placed in that course.

The readiness groups and their graduation rates are shown in the table to the left. Note the following:

• "College Ready" students were placed in college English and a college algebra (or higher math) course.

• "Risk Level 1" students were college ready in English and able to take non-TRS math courses, but weren't ready for college algebra. Their graduation rate was significantly lower than the College Ready group.

• "Risk Level 2" students were not college ready regarding either math or English. Only 11.3% graduated within three years.

Demographics
Female students were more likely to graduate within three years than males. Black and Hispanic students were less likely to graduate within three years than Whites. The only group with a higher three-year graduation rate than White students was international students.

A New Tool in IR's Toolbox

The gold standard in researching the efficacy of a policy, treatment, or other intervention is to have random assignments across the treatment group and control group. However, in the world of post hoc studies (where IR spends much of its time), such procedures are rarely performed, mainly due to logistics, time, and resources.

In 1983, statisticians Rubin and Rosenbaum developed a technique that allows for the accounting of covariates between a treatment group vs. a non-treatment group. This technique is called propensity score matching ("PSM").

PSM allows us to reduce some of the confoundedness and bias that exist when comparing two groups on a single variable.

With PSM, we can create a comparable non-treatment group that matches the treatment group on multiple variables (e.g., sex, age, race/ethnicity, GPA, social economic status, full-time/part-time status).

As with any tool, there are advantages and disadvantages of using PSM. One advantage is having a balanced comparison so that the average effect of the treatment can be measured from observational data. One disadvantage is that we can't account for unobserved covariates.

This semester, two IR projects have already been completed using PSM. The technique will help IR staff complete research requests with a new tool. It will also greatly help MCC's decision makers have a better understanding of the effects policies and intervention may have on our institution.

International Students' Enrollment

IR recently compiled data on MCC's international student enrollment. It was used as a part of a campus-wide internation-alization review, conduc-ted and overseen by the American Council on Education's Internationali-zation Laboratory.

The results over the three most recent fall terms were interesting.

In total, 217 (undup-licated) international stu-dents were enrolled at the College. They represent-ted more than 54 nations from around the globe.

Not surprisingly, Canada was at the top of the list. The subsequent four coun-tries were from across Asia.

The following table shows the top countries and the (unduplicated) number of students from each who were enrolled at MCC.

For more information on the American Council on Education's ("ACE") Internationalization Laboratory, visit: http://www.acenet.edu/news-room/Pages/ACE-Internationalization-Laboratory.aspx

Top Countries of Origin (Fall 2009, 2010, 2011)

Country	Undup # of Students
Canada	37
South Korea	24
China	18
Vietnam, India (tie)	15
United Kingdom, Japan (tie)	10
Nigeria, Jamaica, Singapore, Turkey (tie)	4

Fall-to-Fall Persistence of Liberal Arts Students

The IR Office assembled data to assess liberal arts (LA04) students' outcomes from fall 2006 through fall 2010. We also considered all of the sub-groups of LA04 students, such as those in 2+2 programs, LA05, LA01, and LH01. Two outcomes we looked at were fall-to-fall persistence and transfer before gradua-ting from MCC.

Overall, the results show the following:

• LA04 students' persis-tence isn't much different than that of other students.

• LA04 students in 2+2 pro-grams show higher persis-tence and transfer rates than LA04 students not in 2+2 programs.

• Females have a higher persistence rate than males among the general LA04 group, but not among the 2+2, LA05, LH01, or LS01 sub-groups.

• LH01 and LS01 stu-dents are more likely to transfer before gradua-ting than LA04 students in general and students in the larger MCC popu-lation.

• LH01 students have the lowest persistence rates of all the sub-groups.

• Among first-time, full-time LA04 students over-all, those ages 25 and older have the highest persistence rate. How-ever, among those in the LH01 and LS01 sub-groups, younger students have higher persistence rates.

• Asian and White LA04 students have higher persistence rates than students of other races and ethnicities. However, among those in LA04 2+2 programs, there is no difference in persistence rates among race/ethnic groups.

LA04 students' persistence isn't much different than that of other students.

LA04 students in 2+2 programs show higher persistence and transfer rates than LA04 students not in 2+2 programs

Residence Hall vs. Non-Residence Hall Outcomes

IR looked at fall 2009, 2010, and 2011 residence hall ("RH") and non-residence hall ("NRH") students and compared them in terms of three outcomes:

1. End-of-term GPA
2. Fall-to-fall persistence
3. Three-year graduation or transfer (before graduating from MCC) to a four-year college

We utilized propensity score matching (see the article on page 2) to conduct the analyses.

There were no statistically significant differences between the RH and NRH students in regard to end-of-term GPA or persistence. However, the RH students had a higher graduation/transfer rate than the NRH students (49.6% vs. 38.5%, respectively).

When we focused on student athletes, we found no statistically significant differences between the RH and NRH athletes in regard to any of the three academic outcomes.

Overall, the results of the study were positive, especially given research conducted at other colleges that shows poor outcomes among RH students as compared to their NRH peers.

For more information about the Institutional Research (IR) Office, you can visit our web pages on the MCC website or contact an IR staff member:

Angel E. Andreu, Director, 292-3031, aandreu@monroecc.edu

Amy Wright, Secretary, 292-3035, awright@monroecc.edu

Andrew Welsh, Specialist, 292-3034, awelsh4@monroecc.edu

Elina Belyablya, Specialist, 292-3033, ebelyablya@monroecc.edu

Mary Ann Matta DeMario, Specialist, 292-3032, mdemario1@monroecc.edu

The links to previous issues of *Inside IR* are on our homepage:
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