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Making Barnard History

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My project examines student residential patterns in Barnard's Classes of 1910 and 1925 using ArcGIS. I found that student residential patterns diverge between the Classes of 1910 and 1925, in the direction of representing more students who live in areas beyond the New York City and the tri-state area. My project examines a few explanatory factors behind this shift, based on preliminary work in the archives.

Methodology

Map 1 and Map 2 (see attached PDF's) chart the distribution of residential addresses of students from the Class of 1910 and 1925, respectively. Student residential addresses were collected from the Registrar's records and transcripts from the Dean of Studies records, available on the course blog. Of the addresses listed, there were 8 addresses that were successfully geocoded in ArcMap for the Class of 1910 and 144 residential addresses that were successfully geocoded for the Class of 1925. In terms of methodology, there were certain student records that listed sufficient detail to directly geocode the student's address because the record included the street name and apartment number. In other cases, the records only indicated the student's hometown and state. In such cases, I manually selected the point locations of student addresses by referencing the location of each town using Google Maps. Last, there were a few residential addresses in New York City that no longer exist. That is, either the building no longer exists or the name of the street has changed. In such cases, I referenced an online directory that charts

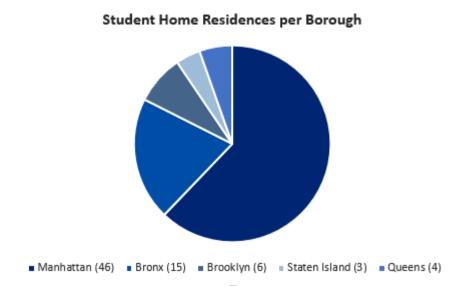
how street names have changed over the years in New York City. This methodology was used for mapping the residential addresses for the Classes of 1910 and 1925.

The approach described above should be considered a methodological limitation of this analysis, as insufficient record details precluded total precision for every residential address location mapped. However, this map can still serve as an approximate assessment of where students lived in the Classes of 1910 and 1925.

Class of 1910

Map 1 shows the distribution of home adddresses of students from the Class of 1910. Per Figure 2, the greatest number of students lived in Manhattan (46), followed by the Bronx (15), Brooklyn (6), Queens (4), and Staten Island (3).

Figure 2: Class of 1910



While a count of the distribution of student residences per borough is a useful metric, a

buffer analysis provides a more comprehensive assessment of how close students actually lived to campus. A multi-ring buffer analysis was performed by creating 1-mile, 2-mile, 3-mile, 6-mile, 10-mile, and 20-mile buffers around Barnard to determine how many student residences fell within each parameter. Figure 3 charts the percentage of student residences that fell within each buffer zone (n= 91). In total, more than half (56.05%) of students lived within 6 miles of Barnard, while 30.77% of students lived between 10 and 20 miles of Barnard. A minority of students (15.38%) of students lived beyond 20-miles of Barnard, which includes 2 out-of-state students. The lower number of students living beyond 20-miles suggests that a minority of students in the Class of 1910 were traveling to Barnard from large distances.

Figure 3: Buffer analysis for the Class of 1910

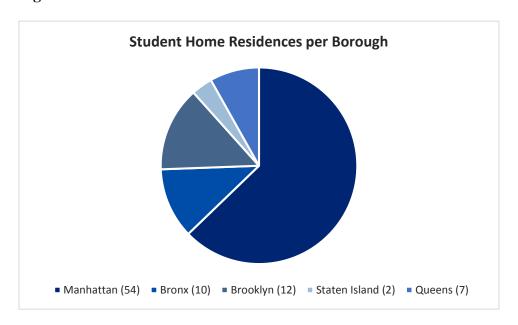
Buffer	Number of Student Residences within	Percentage of Total
	Buffer	(n=91)
1-mile	11	12.09%
2-miles	15	16.48%
3-miles	3	3.30%
6-miles	22	24.18%
10-miles	19	20.88%
20-miles	9	9.89%

Beyond 20 14 (in	ncludes 2 out of state students)	15.38%
miles		

Class of 1925

Similar to Map 1, Map 2 charts the distribution of home addresses of students from the Class of 1925. As Figure 4 shows, the greatest number of students came from Manhattan (54), followed by Brooklyn (12), the Bronx (10), Queens (7), and Staten Island (2). In general, the distribution of student addresses across the New York City boroughs between the Classes of 1910 and 1925 are relatively similar; there were 46 students from Manhattan in the Class of 1910, and 54 students from Manhattan in the Class of 1925. Similarly, there were 15 students from the Bronx in the Class of 1910, and 10 from the Bronx in Class of 1925.

Figure 4: Class of 1925



The residential patterns of the Class of 1910 and 1925 do diverge, however, when

considering the buffer analysis described above. Figure 5 charts the number of student residences within each buffer zone. While a majority of students in the Class of 1910 lived within 6-miles of Barnard (56.05%), fewer students in the Class of 1925 lived as close. That is, 47.90% of students lived within 6-miles of Barnard, or 8.15% fewer students in 1925. A relatively equivalent number of students lived within a medium-range distance from Barnard, defined as between 10 and 20 miles of the school, in 1910 and 1925. In the Class of 1925, 29.86% of students lived within 10 and 20 miles, while 30.77% lived between 10 and 20 miles of the school in the Class of 1910. The residential patterns diverge more heavily when examining the number of students who lived great distances from Barnard, defined as beyond 20 miles. In the Class of 1910, 15.38% of students lived beyond 20-miles of the school, while 22.22% of students lived beyond 20 miles of Barnard in the Class of 1925.

Figure 5: Buffer analysis for the Class of 1925

Buffer	Number of Student Residences within	Percentage of Total
	Buffer	(n=144)
1-mile	19	13.19%
2-miles	16	11.11%
3-miles	12	8.33%
6-miles	22	15.27%
10-miles	23	15.97%

20-miles	20	13.89%
Beyond 20	32	22.22%
miles		

While the residential patterns of the Class of 1910 and 1925 certainly move in the direction of representing students from a wider geographic scope, a more comprehensive analysis would include the following: 1) obtain the full set of student records for the Classes of 1910 and 1925 and 2) create more multi-ring buffers to analyze the distribution of residential addresses beyond 20-miles. For this latter point, it is the case that several students lived at a distance much greater than 20-miles from Barnard; there were a few students from Virginia, Georgia, and Oregon. For this reason, it would be better to analyze residential patterns also at the 50-mile, 100-mile, 200-mile, 500-mile, and 500+ mile markers. The next section will turn toward a discussion of possible explanatory factors behind the greater geographic distribution of student residences between the Classes of 1910 and 1925.

Possible Explanatory Factors

Building of Brooks Hall

The building of Brooks Halls in 1925 is likely one of the driving factors behind the greater geographic distribution of student residential addresses between the Classes of 1910 and 1925. Between the 1919 and 1924, minutes from the Board of Trustees meetings are heavily focused on finding a solution to the lack of available housing at Barnard. In 1919, the Committee on Buildings and Grounds begin to strongly urge the Board of Trustees to erect a new wing to Brooks Hall to accommodate more students. Prior to 1925, the College had sought short-term

solutions to accommodate additional students by essentially scattering students throughout several different residential buildings. A group of 25 students lived in an apartment on Amsterdam Avenue and 117th Street, 43 students lived at the Alumnae Cooperative Dormitory, and 12 students lived in Furnald Hall in 1921, according to the Committee on Building and Grounds. In response to these living conditions, the Committee on Buildings and Grounds lamented in 1921, "The residence conditions in New York are so bad at present, and the difficulty of caring for scattered students so great." In an effort to encourage the Board of Trustees to consider erecting a new wing to Brooks Hall, the Committee on Buildings and Grounds even pointed to the success of the Alumnae Cooperative Dormitory in 1919: "After a three years' trial, the Committee has now proved that a dormitory of this kind can be self-supporting. They feel that they have established a place of residence which not only meets the needs of students of moderate means but cultivates a sense of social responsibility."

In response to these pleas, the Board of Trustees authorized the erection of an additional wing to Brooks Hall, "extending from the present Brooks Hall to the terrace of Students' Hall, a distance of two hundred feet, to accommodate 260 students." In total, the Committee on Buildings and Grounds asserted that the new wing could be built and furnished for under \$600,000. The building was erected in 1925.

The fact that Brooks Halls opened up 260 additional spots for boarding students could be correlated to the shift in residential demographics between the Classes of 1910 and 1925 observed above. In the archive, I found a residence statistics sheet for the total Barnard College student body in 1925-1926, listed in Figure 6. While I did not come across a comprehensive residence statistic sheet for any period prior to the construction of Brooks Hall, such a resource would be invaluable moving forward with this analysis. What we can gleam from Figure 6,

however, is that more students came from areas beyond the New York and New England area in 1925. Given that only 14 students in the Class of 1910 came from areas beyond 20 miles in the buffer analysis conducted above, the fact that 136 students in the student body in 1925 came from areas beyond New York and New England suggest a push toward greater geographic representation in the student body.

Figure 6: Barnard College Total Residence Statistics, 1925-1926 | n = 1541

Region	Percentage of Total
New York State (excludes NYC)	44.32%
North Atlantic Division (CT, ME, MA, NH,	13.30%
NJ, PA, RI, VT)	
South Atlantic Division (DE, D.C., FL, GA,	2.5%
MD, NC, SC, VA, WV)	
South Central Division (AL, AR, KT, LO,	2.01%
MS, OK, TN, TX)	
North Central Division: (IL, IN, IA, KS, MN,	3.38%
MI, NE, ND, OH, SD, WI)	
Western Division: (AZ, CA, CO, ID, MT,	0.64%
NE, NM, OR, UT, WA, WY)	
Insular and Non-contiguous Territories	0.32%
(Alaska, Porto Rico)	
New York City	33.54%

Educational Policy Shift

Changes in educational policy between 1910 and 1925 may represent another explanatory factor behind this shift in student residential patterns. The Education Law of 1910 required that all teachers employed in public schools receive a certificate. Before 1910, teachers in New York did not need to obtain an educational certificate to teach in elementary schools; good moral character and teaching competency served as a benchmark for qualification. By the 1920's, however, the Department of Education and Regents began to impose stricter teaching qualifications. In 1921, the Department of Education ceased teacher certification through examination and instead required that teachers obtain a professional education. As more secondary schools oriented their curriculums to prepare students for post-secondary educations, students living in areas beyond New York City perhaps began to consider higher education options when they needn't not have in the past. In this scenario, students from a wider geographic area may have begun to look toward Barnard as a viable place to study, particular since Barnard was no longer a day school.

Data obtained from Barnard's Committee on Admissions records tenuously support this claim. In September 1912, the Committee on Admissions recorded that of the 187 first-year students entering Barnard, 41 students entered by examination, 42 by Regents, 40 by combination, 6 by transfer, and 2 by "S.S., ect." By 1925, however, a much larger percentage of students entering Barnard's first-year class were accepted on the basis of their Regents

¹ "Higher and Professional Education: Teacher Training and Certification." New York State Education Department. 22 February, 2015. http://www.regents.nysed.gov/about/history-highered.html

² "Higher and Professional Education: Teacher Training and Certification." New York State Education Department. 22 February, 2015. http://www.regents.nysed.gov/about/history-highered.html

³ "Higher and Professional Education: Teacher Training and Certification." New York State Education Department. 22 February, 2015. http://www.regents.nysed.gov/about/history-highered.html

⁴ We discussed this point in class.

qualifications, and other standardized testing. Of the 236 first-year students entering the Class of 1925, 39 entered through the Fifteen Unit Plan, 32 by the four comprehensives, 43 by psychological tests, 102 by Regents, 16 by transfer, and 4 by combinations. That is, while only 22.5% of students entered in the Class of 1912 via their Regents qualifications, 43.22% of students entered in the Class of 1925 via their Regents qualifications. While these statistics do not tell us anything about the secondary schools students came from, they do support the claim that more students were entering Barnard from schools that likely had a college preparatory focus (in that they must have prepared students to take the Regents exam in the first place). While a speculative claim, it seems valid to assert that more students that wanted to enter into a career in education would have to consider education options beyond their hometown and consider a post-secondary education at places like Barnard. This line of thought serves as a potential explanatory factor behind the greater geographic representation in student residential patterns. As with any archival work, this project could be strengthened by examining additional explanatory factors. Examining how the availability of student scholarships, both residential and academic, interfaces with student demographics represents a rich line of inquiry moving forward.