

2 May 2005

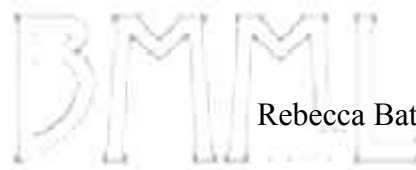
Dear Architect Borghi,

Over the past four months, BMML Int'l has engaged in thorough and extensive research to provide you with insightful information. We are delighted to submit our findings in a conclusive synthesis of our earlier reports. The population density situation is complicated, and relates to a series of other issues. We are confident, however, that the recommendations included in this synthesis provide accurate and appropriate measures to both preserve the positive effects and lessen the negative ones.

On behalf of the entire BMML Int'l research staff, we would like to deeply thank you for this opportunity to explore such an interesting and lively area of Rome. Without this project, the profoundly intriguing aspects of Piazza Bologna would not be discovered and assessed in this manner. We have learned a great deal about the residents and employees of Piazza Bologna, as well as the economic, social and environmental aspects of the region.

We hope that the information provided will suit your needs. Additionally, we urge you to strongly consider implementing the recommendations set forth in this final report. If you need any more information, please feel free to contact our office at any point in the future.

Best regards,
BMML Int'l Associates



Rebecca Bateman

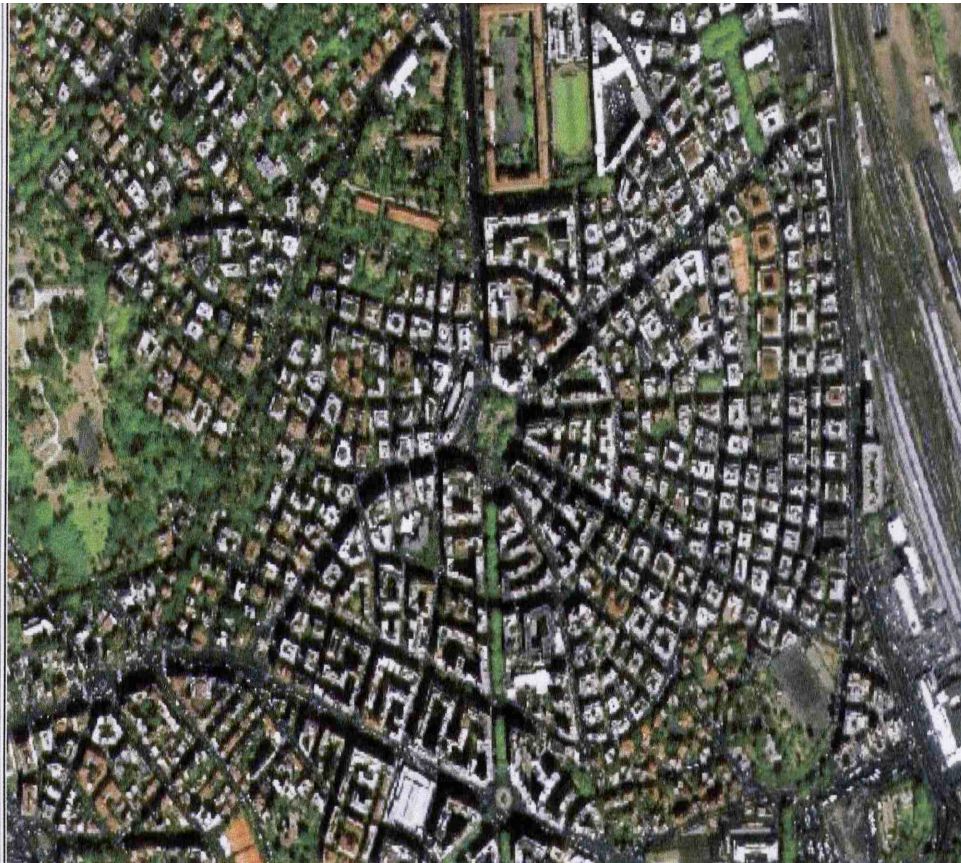
Rebecca Liu

Hannah Marcus

Jenna Mitchell

ENC: Final Report
Technical Appendices

**Diversity and Density:
Maintaining the Positive Effects, Curbing the Negative Effects
BMML's Final Recommendations for Improving the Quality of Life
for Piazza Bologna**



Research Associates:

Rebecca Bateman

Rebecca Liu

Hannah Marcus

Jenna Mitchell

May 2, 2005

EXECUTIVE SUMMARY

Although the absolute population of Piazza Bologna is on the decline, the residual effects of population growth during previous years have left its impact on the people of Piazza Bologna. This report will attempt to look at the effects of Piazza Bologna's population density situation from a variety of perspectives to best serve the Municipio in its pursuit of maximizing the quality of life for both residents and non-residents of the neighborhood. BMML Int'l is particularly concerned with the well-being of the citizen—ranging from the university student to the retired grandparent. After an in depth examination of the neighborhood, BMML has compiled a list of policy recommendations that will benefit the area, curb the negative effects of density—specifically revolving around transportation and housing—and maintain a comfortable standard of living for those connected to Piazza Bologna.

Transportation

Despite being a well-connected area, Piazza Bologna has many transportation issues due to density. Residents complain of the buses being too crowded and not running frequently enough. Residents also complain about the parking issue of the area, as it is extremely difficult to find a place to park. They are also concerned with the effects of pollution and noise due to the vast number of cars traveling through the neighborhood. As there are plans to expand Stazione Tiburtina into something akin to Termini, there will most likely be an increase in the number of buses servicing the area as well as an increase in their frequency. This will hopefully satisfy the needs of bus riders. With regards to the parking issues, new parking lots could be built, most likely underground as there is no space to build in the neighborhood. An aggressive towing campaign along with a bike path would also help to discourage the use of private cars.

Housing

Furthermore, Piazza Bologna has been and remains one of the most attractive neighborhoods in the greater area of Rome. With the University of La Sapienza, the array of commercial and professional services as well as the neighborhood's proximity to several modes of transportation, it is a natural draw for a wide range of people, especially students and the elderly. The vibrant and diverse Piazza Bologna suffers however from severe illegal subletting and overcrowded apartments. Coupled with these concerns is the shortage of affordable housing especially for temporary residents such as students and young professionals. To alleviate these housing ailments BMML insists that defunct subdivision policy be eliminated and measures to develop student housing through the conversion of *casa popolare* as well as the appropriation of *nuda proprieta*. In addition, the creation of a Student Housing Authority would provide a means of communication between the students and the client to openly discuss future problems and assist students find apartments to rent legally.



Palazzo Lazzaroni
Via dei Barbieri, 6
Roma, Italia
00186

Phone: 011-39-066-897-070
Fax: 011-39-0668-199-227
Email: cornell@mail.nexus.it
Website: <http://www.rome.cornell.edu>

Objectives

BMML addresses the Municipio's concerns through a series of recommendations, each relating to the quality of life for either those who live in Piazza Bologna or those who visit the area for business or leisure purposes. The recommendations of this report are meant to: 1. maintain the economic sustainability of the area, 2. substantiate the area's reputation of being a well-connected transportation center, 3. maximize the supply and accessibility of adequate housing, 4. reduce the amount of environmental degradation in the area and, 5. provide a region that is both open and congenial to any population, where any voice can be heard.

What became most clear from BMML's investigation of Piazza Bologna is that its growth and development provides an excellent model for other neighborhoods in Rome. The following pages provide a brief overview of major recommendations BMML Int'l has developed to address population density as well as alleviate issues regarding transportation, housing and measures to improve the current Participatory Planning process.

RECOMMENDATIONS

Population Growth

- Do not attempt to curb the population growth by restricting migration to the area. Any sort of overt population control policy will inevitably detract from the many positive effects of a dense area. These benefits for both Piazza Bologna and Rome at large include: a healthy economy and employment sector, a sense of security, the prevention of urban sprawl and a diverse neighborhood.

Transportation

- Continue to promote the pilot car-sharing program that attempts to curb the pollution, noise and inefficiency associated with the high incidence of traffic and density in the area.
- Create a series of parking spaces and regulations to lessen the negative effects of mobility. Engage in an active search to determine which underground areas are appropriate for a parking lot, keeping in the mind the potential archaeological significance. Then, determine an appropriate price for parking, thus regulating the number of parked cars and controlling the congestion and pollution.
- Implement a bike path from Piazza Bologna to La Sapienza, thus allowing the young, student population to travel safe, environmentally-friendly way.

Housing

- Increase regulation. It must be clear that when tenants sign leases, there are not allowed to bring additional people into a home that only has enough space for an allotted number. This sort of overcrowding has previously brought the price of housing up in the area.
- Allow for the humane and appropriate sub-dividing of apartments, thus eliminating the archaic laws prohibiting such activity.
- In order to increase affordability, the hoarding of property must decrease.
- Increase student housing options by converting *Case Popolare* to university student options.
- Urge a partnership among the University and the Municipio to purchase *nuda proprieta* and convert the apartments to student housing options.



BMML INTERNATIONAL

Palazzo Lazzaroni
Via dei Barbieri, 6
Roma, Italia
00186

Phone: 011-39-066-897-070
Fax: 011-39-0668-199-227
Email: cornell@mail.nexus.it
Website: <http://www.rome.cornell.edu>

- Create a Student Housing Authority to act as a liaison among students, the community and the Municipio.

Participatory Planning

- Make substantial efforts to support the participatory planning process, as to encourage all Piazza Bologna residents to help develop a sense of community and improve their living and working situation.

BMML

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PIAZZA BOLOGNA: A CHANGING NEIGHBORHOOD

BMML Int'l was asked to explore the recent history of Piazza Bologna in terms of its demographics and clearly and accurately assess the population density in neighborhood by the client, Municipio III. Then, the client requested that BMML Int'l determine the effects, both positive and negative, of the current population situation in Piazza Bologna. Next, BMML was asked to make recommendations as to how to: a.) maintain the positive effects of the demographic situation in Piazza Bologna and b.) lessen or prevent the negative effects of the population reality.

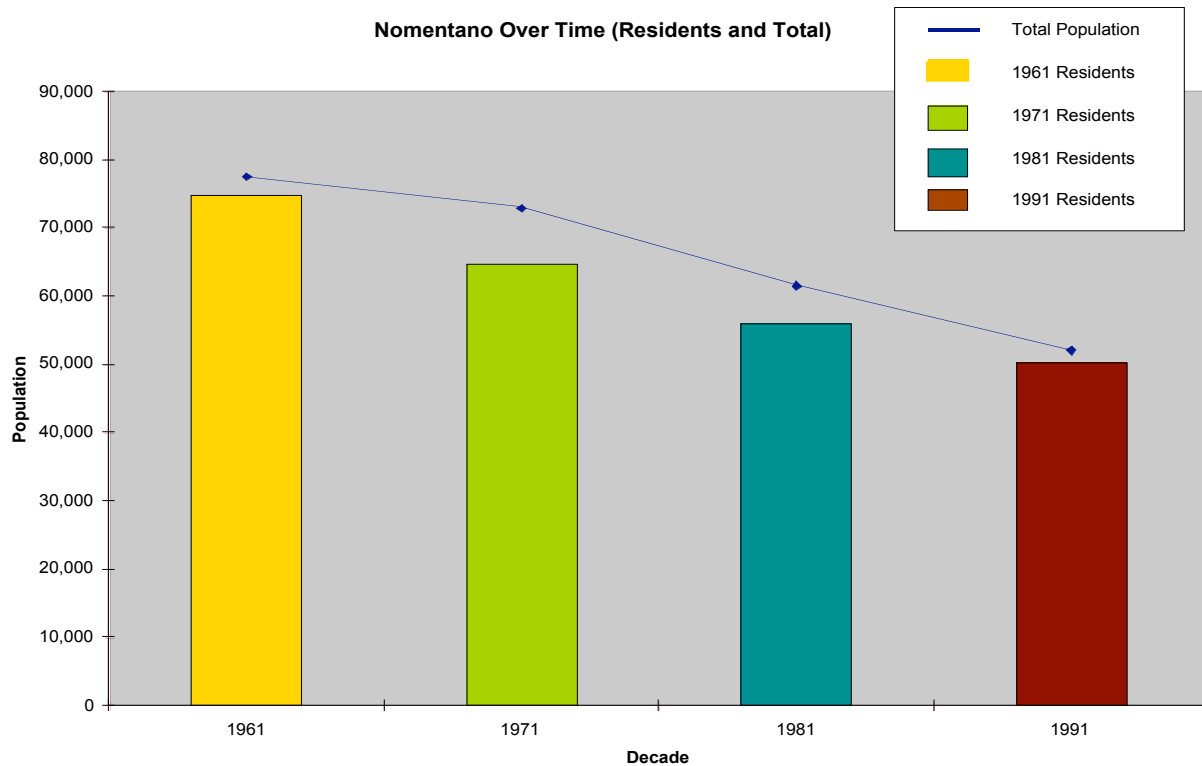
In this final report, the main criteria established by the client, Municipio III, will be addressed. The positive effects of population density are explained, the negative effects will be explored. The goal of this report was to create a strategic perspective for the neighborhood, allowing the governing body to prevent unnecessarily detrimental outcomes. The potentially negative effects are the major focus of this report, as they directly lead to the series of policy recommendations meant to ensure the sustainability of the Piazza Bologna community. The negative effects of density can be directly solved by approaching the situation from two fronts: housing and transportation. Throughout the entire project, emphasis remained on the citizen, and how policies could be implemented to enhance not the infrastructure alone, but the character of the neighborhood.

The Current State of Population Density in Piazza Bologna

BMML has learned that it is not necessary that a neighborhood undergo absolute population growth in order for it to experience high density. Upon examination of the available statistics, it was found that the absolute population of Rome and Piazza Bologna both decreased.¹ Please refer to the graph below.

¹ Comune di Roma: Ufficio di Statistica e Censimento. Le città nella Città. Sistema Statistico Nazionale. 2004

Figure 1



From 1981 to 1991, the population of Nomentano² has decreased 15% percent—from 52,157 to 61,581. Furthermore, from 1991 to 2001, there has been a 2% decrease in population in Rome, and there has been a 4% decrease in Municipio III.³ From these statistics, one can assume that Piazza Bologna experienced a decline somewhere between 2% and 15%. While it may appear that the change in population density is becoming less of a problem in Piazza Bologna because of the decreasing population, the previous population boom has had lasting effects. Additionally, according to the statistical data available for 2003, there was a 0.4% decrease in Rome’s overall population, but no significant change in Municipio III.⁴ The fact that no change has taken place shows how it is hard to gauge what will happen to the population in the future. In years to come, the population may rise, remain stable, or begin to decline again. This fact, however, does not detract from the very tangible effects of population density today.

² Nomentano is the greater spatial area neighborhood that encompasses Piazza Bologna.

³ <http://www.romaeconomica.it/> Accessed: April 14, 2005.

⁴ Technical Appendix III: BMML Int’l. Who Determines the Face of Piazza Bologna: A Demographic Analysis of Piazza Bologna. February 28, 2005.

Table 1

Nomentano Over Time				
Year	1961	1971	1981	1991
Population	77,597	72,986	61,581	52,157

Table 2

Nomentano Change Over Time			
Year	1961-71	1971-81	1981-91
Change Over Time	-4,611	-11,405	-9,424
Percent (%)	-0.50%	-16%	15.30%

Despite the overall decrease in population over the years, Municipio III still experiences a density of 9,609 people per squared kilometers.⁵ Compare this figure to notoriously densely-populated central Rome: 8,550 people per squared kilometers. The density of central Rome is nearly 1,000 people less than that of Municipio III. It is evident that high density still exists despite the decrease of population. Furthermore, Municipio III is one of the densest and overcrowded areas adjacent to Rome. For a more comprehensive picture, please refer to the chart below.⁶

Table 3

Population Density and Land	
Municipio Densities	Density (people/km²)
Central Rome 1	8,550
3	9,609
6	16,390
8	1,798
10	4,690
11	2,941
16	1,993

Such density in the area is indeed the result of many governmental policies; it is also the result of Piazza Bologna's popularity. Survey data conducted by BMML has reconfirmed the perception

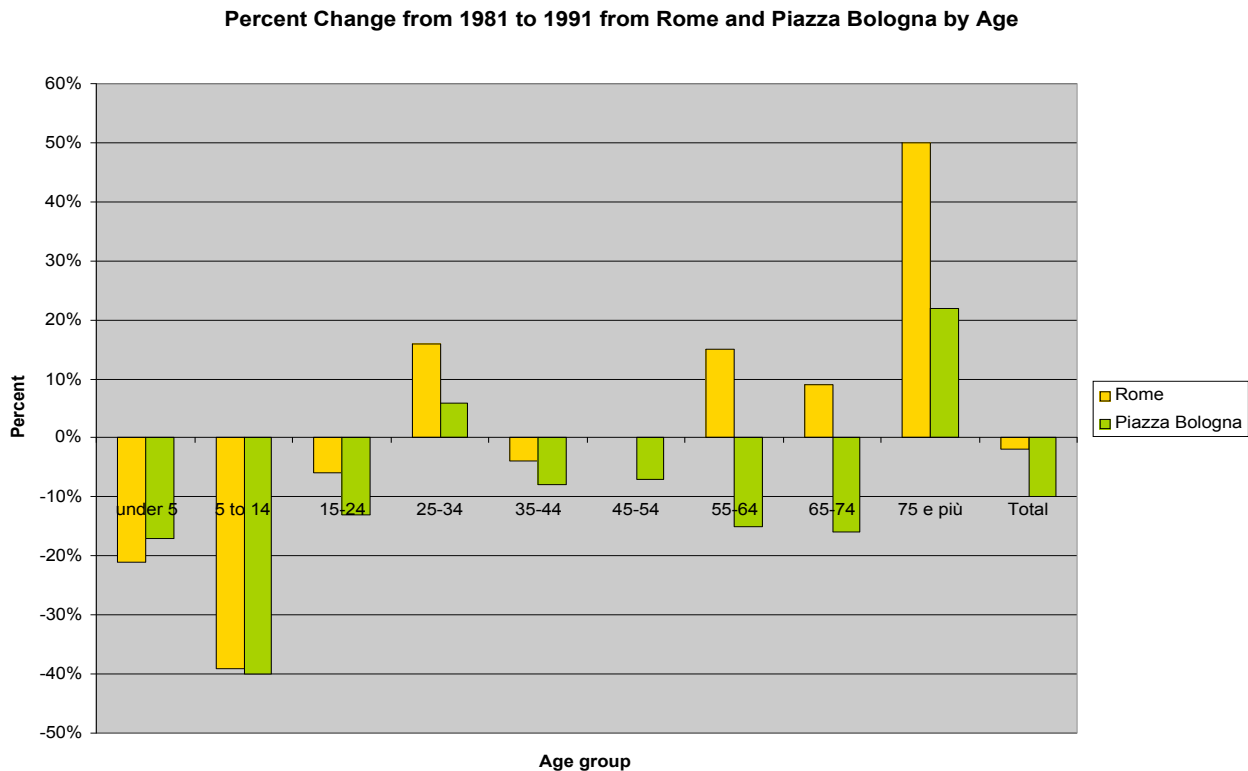
⁵ Comune di Roma: Ufficio di Statistica e Censimento. Le città nella Città. Sistema Statistico Nazionale. 2004

⁶ Ibid.

of congestion in the area, and has also confirmed both positive and negative effects of such a region.⁷

The Majority Groups in Piazza Bologna. Before understanding the positive and negative effects, a general understanding of the demographic make-up is necessary. In terms of population groups, there is a specific breakdown for Piazza Bologna. As evidenced by Figure 2, the two age groups that experienced the greatest increase in population from 1981 to 1991 are 15 to 24 year olds and 75 and older.⁸

Figure 2



The statistics confirm what BMML’s fieldwork and observational analyses found. The 15 to 24 year old demographic group increased 13%, while the 75 and older group increased 22%.⁹ This reality may be partially accounted for by the time lapse itself. Yet, given the nearby

⁷ Technical Appendix II: BMML Int’l. Transportation Issues: An Assessment of Piazza Bologna’s Bus and Railway Systems. February 23, 2005.

⁸ Technical Appendix III: BMML Int’l. The Demographic Analysis of Piazza Bologna: Population Density. February 27, 2005.

⁹ Ibid.

Universities (La Sapienza and LUISS), as well as the amiable living conditions and commercial activity, one can assume that at least some of the increase is due to newcomers. The majority of the increase is probably related to Piazza Bologna being an area where residents like to remain for a long period of time.

The Historical Causes of Population Growth in Piazza Bologna

The popularity of Piazza Bologna, which has led to the current density, can be understood in a historical context. During 1909, the radial-spatial layout of Piazza Bologna was implemented, spurring residential and commercial activity. This particular road design allowed for easy access to the center of the neighborhood, where many of the important administrative and household tasks are accomplished. In 1925, a housing intervention took place, where many new residential developments increased the land value of the area, drawing in a middle-class population. The real population change, however, occurred in the post-war era, when speculative building programs took place. According to city officials of the EUR, both residential and non-residential building investments occurred during the early 1950s in anticipation of a great increase in population for Rome, which would trickle to the outskirts of the center of Rome directly into Municipio III and Municipio XI. In fact, according to the Statistics Office of Rome, Piazza Bologna's construction between 1919 and 1945 accounted for 5.2% of Rome. The new available residential and commercial building in Piazza Bologna was quite profound, as the neighborhood makes up only 0.04% of Rome's entire land.¹⁰

It was during this particular time period that the population of Piazza Bologna increased dramatically¹¹. Then in 1963, a series of zoning laws in other parts of the city created conditions that led to even greater population growth in Piazza Bologna. As development restrictions were placed on various other parts of the city, many of the willing and able began to move to Piazza Bologna. The density issue was exacerbated since the increase in population coincided with the decrease in building developments in Piazza Bologna. Below are three charts tracking the construction projects over time. The first chart shows the periods of building development for Piazza Bologna, and gives both the absolute numbers, as well as the percentage of the total each building period makes up. The second chart provides the same sort of information, but for Rome.

¹⁰ Statistics from: *Le città nella Città*. Comune di Roma: Ufficio di Statistica e Censimento. 2004.

¹¹ EUR officials. March 7, 2005.

The last chart includes the percentage of building construction Piazza Bologna makes up in Rome. While the primary decrease in building projects may be due to zoning restrictions, the decline in building projects into the most recent years reflects the lack of space available to build upon after 1971.

Table 4

Piazza Bologna: Periods of Building Development							
Year	Before 1919	1919 – 1945	1946 – 1960	1961 - 1971	1972 -1981	1981 - 1991	Total
Total units	30	8007	3945	377	28	23	12,410
%	0.24%	64.52%	31.79%	3.04%	0.23%	0.19%	

Table 5

Rome: Periods of Building Development							
Year	Before 1919	1919 – 1945	1946 – 1960	1961 - 1971	1972 -1981	1981 - 1991	Total
Total units	71,090	153,368	324,169	351,998	168,235	86,148	1,155,008
%	0.06%	0.13%	0.28%	0.30%	0.15%	0.07%	

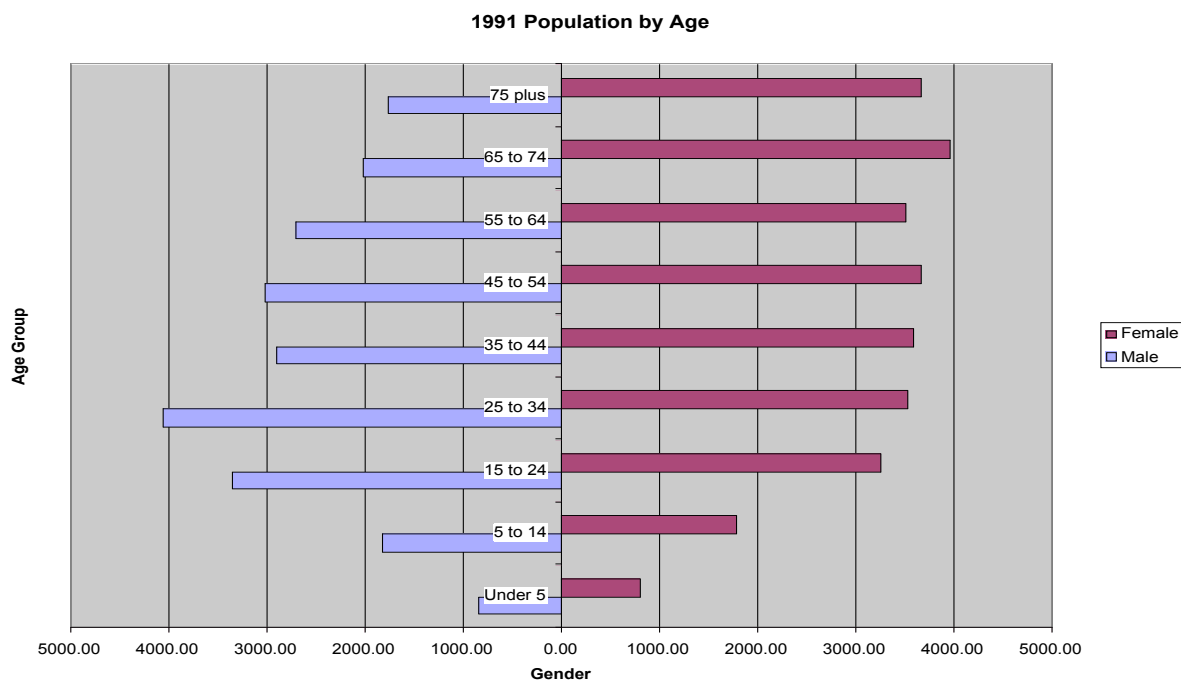
Table 6

Percentage of Piazza Bologna Construction in Relation to Rome							
Year	Before 1919	1919 - 1945	1946 – 1960	1961 - 1971	1972 -1981	1981 - 1991	Total
%	0.04%	5.22%	1.22%	0.11%	0.02%	0.03%	1.07%

Population Growth Leads to High Density. The population and building density became so severe that many people could not find a place to live. Available homes were overpriced and in some cases, unkempt. Consequently, a number of policies were created to curb Piazza Bologna’s population growth. The most important was the Invariance Law of Article 11. This law states that in certain areas, including Piazza Bologna, no more new development projects can take place due to the sheer saturation of development in the area. Another zoning law created to address the population growth prohibits the subdivision of units smaller than 150 square meters. This law poses as a challenge because the fascist regime left Piazza Bologna with apartments that were meant for large families. This size apartment, however, is unsuitable for Piazza Bologna due to the needs of the majority populations. These two populations that

dominate Piazza Bologna are 15 to 34 (mainly students), and 75 years and older. These statistics are shown in Figure 3 below.¹²

Figure 3



The outdated zoning laws contribute to the density issues as a result of their inappropriateness for adequately meeting the needs of the current majority groups. For student renters, the apartments are large and thus costly, forcing renters to split the cost with a higher number of roommates than is legally permitted. For the elderly, the apartments require assistance to live in if they are residing alone, thus leading to an increase in immigrants that work as aids and nurses and are illegally provided with free room and board. Elderly that are not boarding immigrants in their spacious apartments are also contributing to the density problem; in an overcrowded neighborhood, large apartments are an inefficient use of space.

Rampant illegal subletting and overcrowding of an apartment (from one to six extra people) is the main source of the high density problem that ails Piazza Bologna. As BMML conducted its general research of the area, evidence in both the demographic and economic issues of the area revealed the factors that contribute and create this problem.

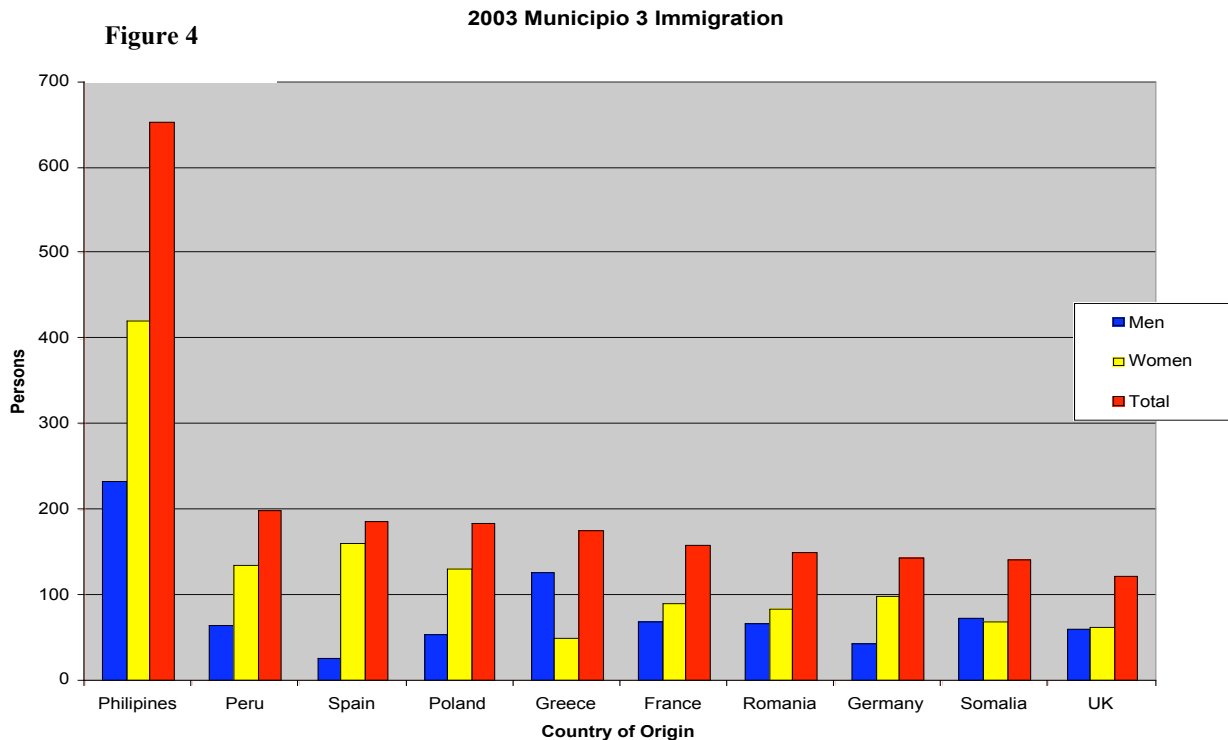
¹² Technical Appendix III. BMML Int’L. The Demographic Analysis of Piazza Bologna: Population Density. February 27, 2005.

The Demographic Causes of Population Growth and High Density in Piazza Bologna

Large Immigrant Population. Another essential aspect of the Piazza Bologna population is its immigrant population. Although data is scarce on the topic, the ethnic breakdown of Municipio III for 2003 is available.

Table 7

Municipio III Immigration of 2003			
	Men	Women	Total
Philippines	234	420	654
Peru	64	135	199
Spain	27	160	187
Poland	54	131	185
Greece	126	50	176
France	69	90	159
Romania	67	83	150
Germany	44	99	143
Somalia	73	69	142
UK	60	62	122
Total	818	1,299	2,117



The available data shows that the number of registered immigrants makes up 2,117 of the residents in Municipio III, and many presumably reside, in Piazza Bologna. Since the total

population of Municipio III in 2003 was 56,272, the immigrant population makes up approximately 3.8% of the entire population.¹³ This data is confirmed by the visual observations made by BMML during previous analyses of the area; there were many Southeast Asian and African people selling merchandise or strolling along the streets. While men and women both seem to move to Italy, the astounding majority of immigrants from any country seem to be women. This may have tremendous implications for the economic situation for Piazza Bologna.¹⁴

According to the Statistical Office of the City of Rome, the foreign citizens registered in the *anagrafe* (population register) of the city of Rome for 2003 total to more than 200,000. This fact translates to an incidence of 72 foreign citizens per thousand inhabitants. Data show that 173,000 or 86% of the immigrants currently living in Rome are from countries outside of the European Union.¹⁵ Although helpful in understanding the current immigration status of Piazza Bologna and Municipio III, one must recognize that many foreigners are not registered and foreign citizens frequently are changing their residence and leaving Rome without any communication to the municipal offices. This leads one to believe that the estimate for immigrants is too low and too difficult to accurately track.¹⁶ Their effect on transportation, housing and the economy of Piazza Bologna may thus go unnoticed by census data.

In terms of the density issue, a large immigrant population is likely to create a problem due to their involvement in illegal subletting. Typically, immigrants have a lower income than the other groups in the neighborhood. As a result, immigrants are likely to cut the cost of housing by engaging in this practice or by choosing to live with more people than the landlord allows.

Civil Status Factors. Researching Piazza Bologna's civil status revealed that there was an almost equal presence of single residents to married residents. Currently, the number of single residents is high compared to the rest of Rome. In Rome, there are fewer singles than married couples, but in Piazza Bologna, the percentages of these two groups are almost equal. The number of single residents is high due to the composition of a majority elderly and student

¹³ Precise figure: 3.76% from Mosaico Statistico: Dati Municipali. November 2004. Comune di Roma: Assessorate alle Politiche Economiche.

¹⁴ Barbara Ehrenreich and Arlie Russell Hochschild. *Global Woman: Nannies, Maids and Sex Workers In the New Economy*. Metropolitan Books: 2003.

¹⁵ D'Elia, Enrico, R. Rosait. "Foreign Citizens in Rome." Statistical Office of the City of Rome. www.irpps.cnr.it/ricmob/web_conf/download/Foreign_citizens_in_Rome_2003.pdf Accessed: February 27, 2005.

¹⁶ Ibid.

population – many old people are widows or widowers, and many young people are not yet married.¹⁷

Table 8

Piazza Bologna Civil Status Percentages 1991						
	Single	Married	Legally Separated	Divorced	Widow/er	Total
Male	47.02	47.37	1.47	1.17	2.95	100
Female	38.95	39.71	1.69	1.99	17.64	100
Total	42.60	43.17	1.59	1.623	11	100

Figure 5

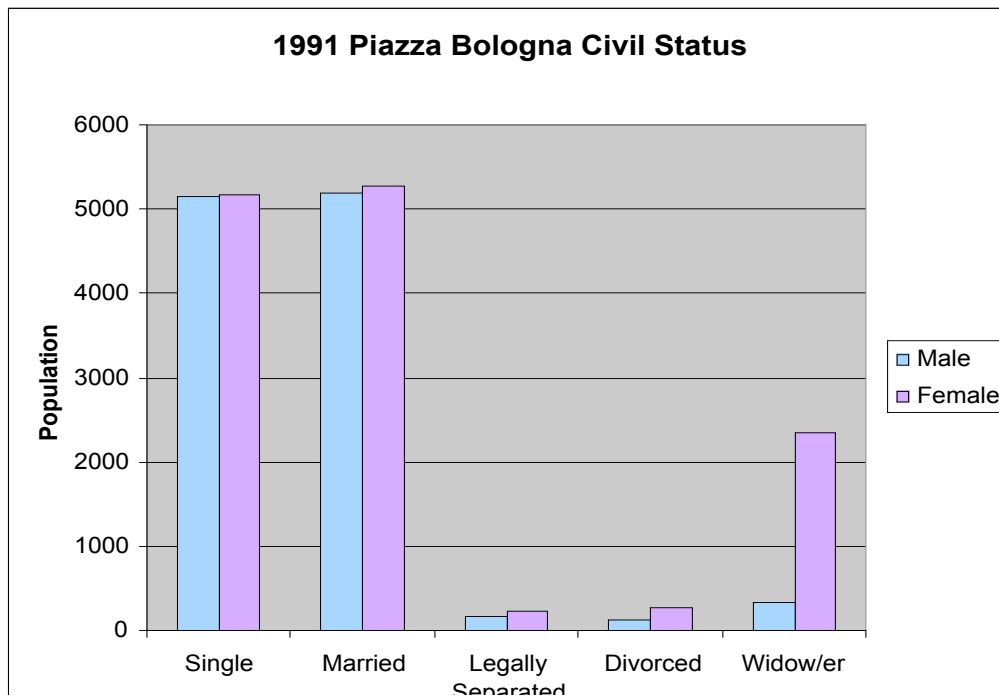
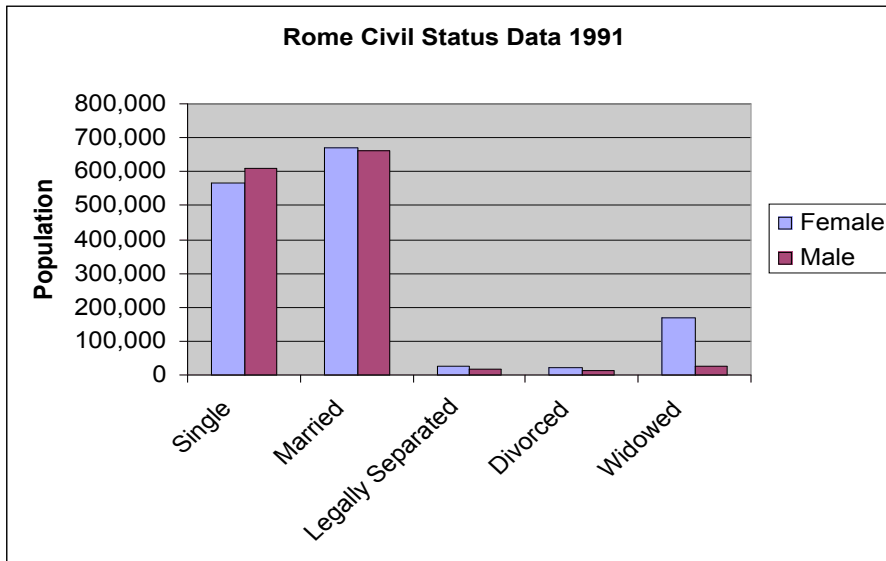


Table 9

Rome Civil Status Percentages 1991						
	Single	Married	Legally Separated	Divorced	Widowed	Total
Female	48.19	50.34	58.19	65.08	85.83	52.25
Male	51.80	49.66	41.81	34.92	14.17	47.75
Total	42.12	48.15	1.47	7.03	21.82	100

¹⁷ Technical Appendix III. BMML Int’L. The Demographic Analysis of Piazza Bologna: Population Density. February 27, 2005.

Figure 6



Consequences of a Large Single Population. A large single population creates a housing problem for Piazza Bologna for several reasons. In a very dense area, single occupancy apartments are an inefficient use of space. If elderly citizens or single citizens continue to live in apartments alone, the demand for more building space to accommodate all the singles will exceed the supply. This can also have an effect on the amount of residents who put money into the neighborhood. If there are not enough residents to fill the jobs in the area, employees will have to come from elsewhere, thus taking money away from Piazza Bologna.

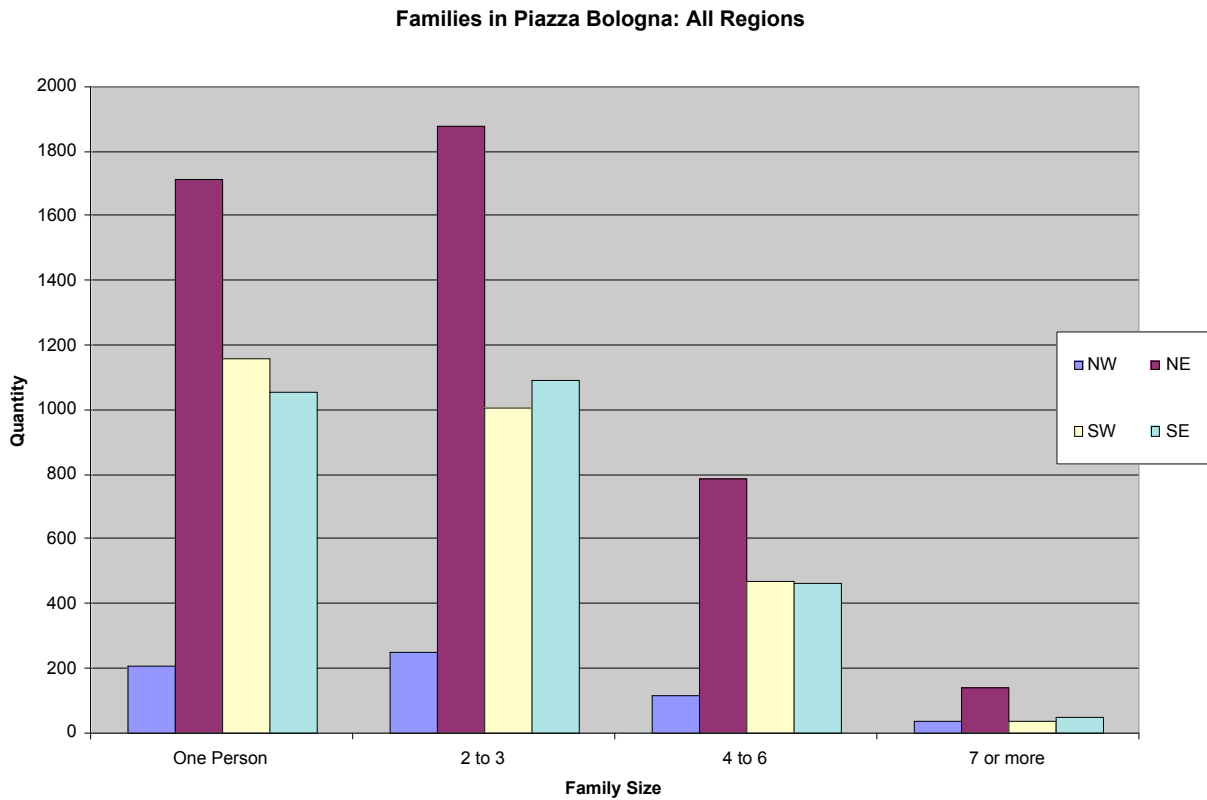
In addition, these apartments are occupied by singles because housing is too costly for families with children to reside in, but a viable option for single, young adults (25 to 34 year olds) as well as the elderly (ages 75 and older). A review of Population by Ages for Regions (Appendix A) shows that the dwelling habits of young adults as well as the elderly residents appear to support the idea that a majority of one person families are predominantly composed by these two age groups.

Fewer Families and Smaller Families. Looking at all the graphs on Appendix A also demonstrates that from 1981 to 1991, the number of people under 5 to 14 years of age has steadily declined. While the other age groups have increased, remained the same, or decreased slightly, the 5 to 14 year old age group has experienced the most significant drop between 1981 and 1991. This indicates that Piazza Bologna residents appear to be having fewer children and

are instead leaving Piazza Bologna to start a family. A possible explanation for the exodus out of Piazza Bologna is because prices for housing are too high to afford while also adequately supporting a family.

Figure 7 below demonstrates this lack of large, or even regular sized families of 1991.¹⁸ The fact that most families that live in Piazza Bologna are composed of either 2 or 3 people proves that raising a large family or owning/renting an apartment big enough for a larger family in Piazza Bologna is difficult.

Figure 7



Large Student Population. Another important factor relating to civil status involves the 24 to 35 year old age group. Due to the close proximity of the University La Sapienza, as well as the high number of schools in the area (the German school, the Foreign Language School, the Parochial school), one can conclude that a large proportion of this age group is students. Students typically make less (or no money at all) than those who are fully employed, thus they are more

¹⁸ Technical Appendix III. BMML Int’L. The Demographic Analysis of Piazza Bologna: Population Density. February 27, 2005.

likely to engage in illegal subletting. Illegal subletting cuts the cost of an apartment, but contributes greatly to the density issue.

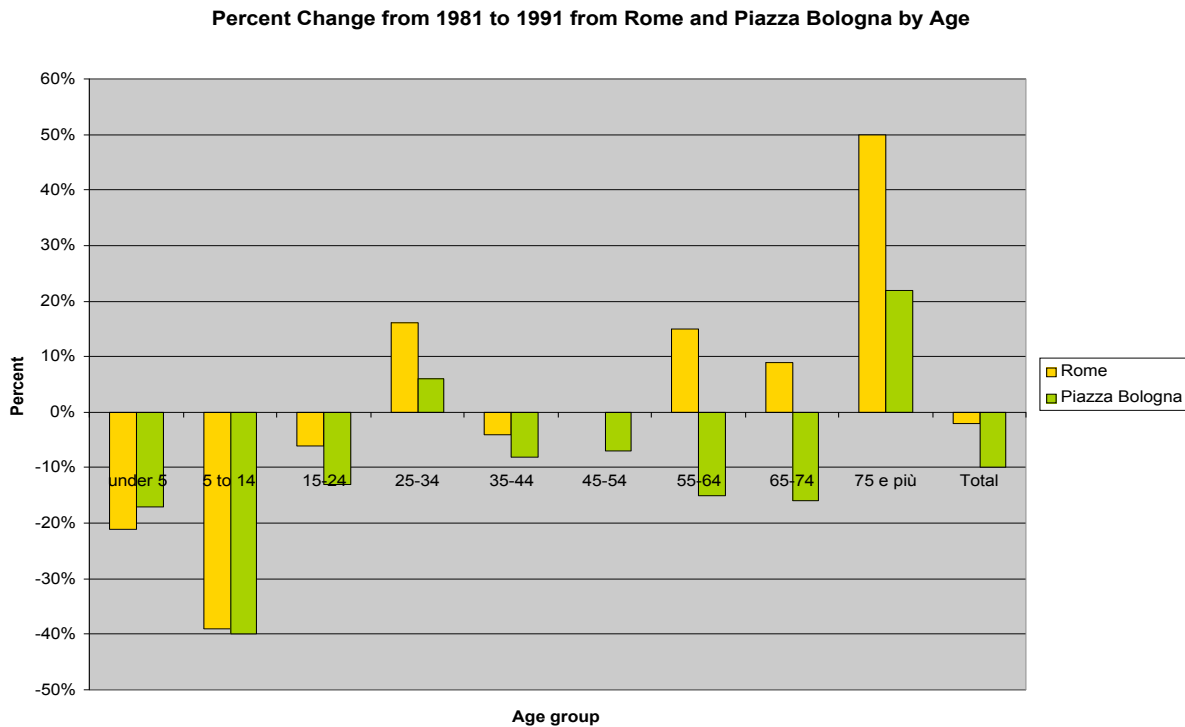
The Positive Consequences of Piazza Bologna's Population

After discovering the reasons why the demographic make-up creates and contributes to the density issue, BMML concluded that the solution to high density and subsequent sustainability could be solved by either diversifying the population (encouraging more middle-aged residents to come into Piazza Bologna) or by better accommodating the already existing majority populations. While diversifying and encouraging a larger middle-aged population would ameliorate the illegal subletting situation (families are less likely to want more people living in their apartments), BMML concluded that the majority presence of students and elderly actually contributed to the function and sustainability of Piazza Bologna. While discouraging these groups to live in Piazza Bologna might have helped the density issue (less subletting, less singles living in large apartments alone), it would threaten the viability of the neighborhood. Thus, BMML's demographic research revealed the source of Piazza Bologna's economic sustainability.

Economic Benefits of High Density. The source of Piazza Bologna's economic sustainability rests on the symbiotic relationship of the two majority populations – 25 to 34 year olds, and the 75 and older age group. The first source of evidence that reveals that these populations go hand in hand is represented by the parallel rise in these age groups, as demonstrated in Figure 8 below.¹⁹

¹⁹ Technical Appendix III. BMML Int'L. The Demographic Analysis of Piazza Bologna: Population Density. February 27, 2005.

Figure 8

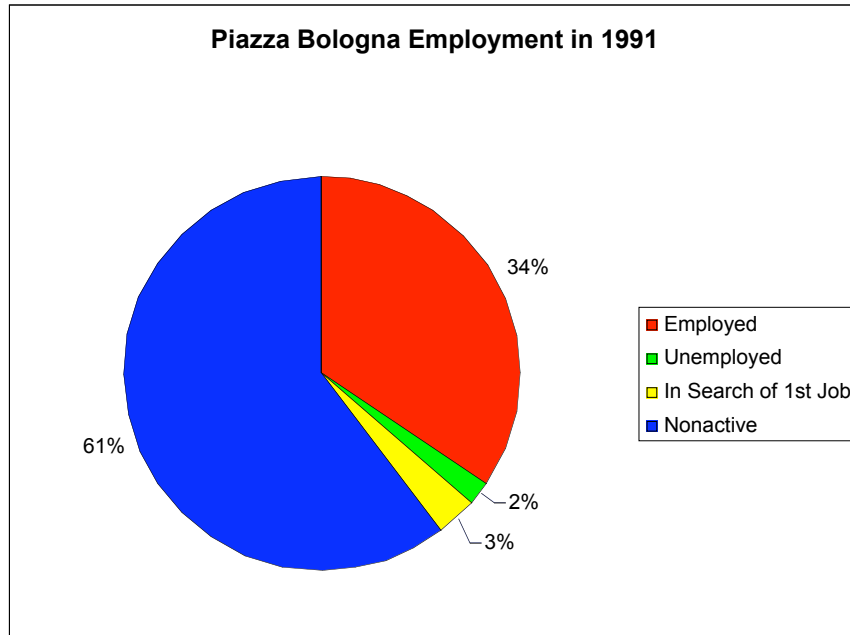


There are two explanations for the parallel rise of 25 to 34 year olds and 75 years and older group, both relating to economics. The first cause is due to the elderly population’s needs for live-in nurses and aids. In most cases, these assistants are likely women, thus explaining Piazza’s Bologna’s disproportionate and increasing female to male ratio (refer back to Figure 3). Another instance where these populations exist in symbiosis also occurs due to the economy. While a less active, retired, older population may at first glance appear to be a problem due to the drain it puts on public spending and their non-activity, it provides a positive opportunity for Piazza Bologna as well. Fewer active elderly leaves more room for immigrants and younger workers to occupy those jobs.

Figure 9 below demonstrates that a great percentage of the region is “non-active” in the workforce, and how this breakdown actually contributes to the sustainability of Piazza Bologna’s economy. Refer to the following graph that illustrates the percentage breakdown of employment in 1991.²⁰

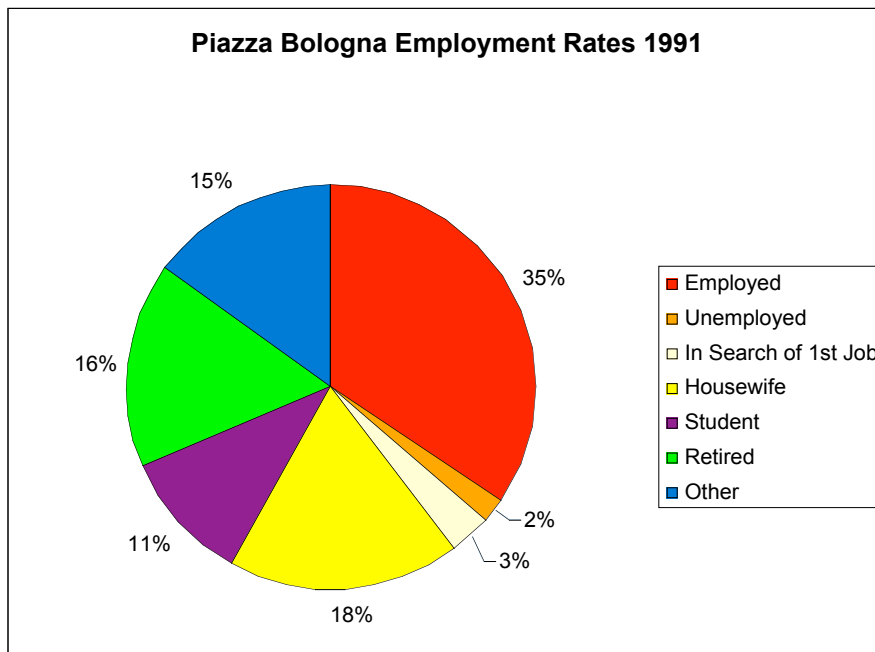
²⁰ Technical Appendix IV: BMML. Economic Development Plan: Piazza Bologna: Sustainability, Security and Satisfaction. March 7, 2005.

Figure 9



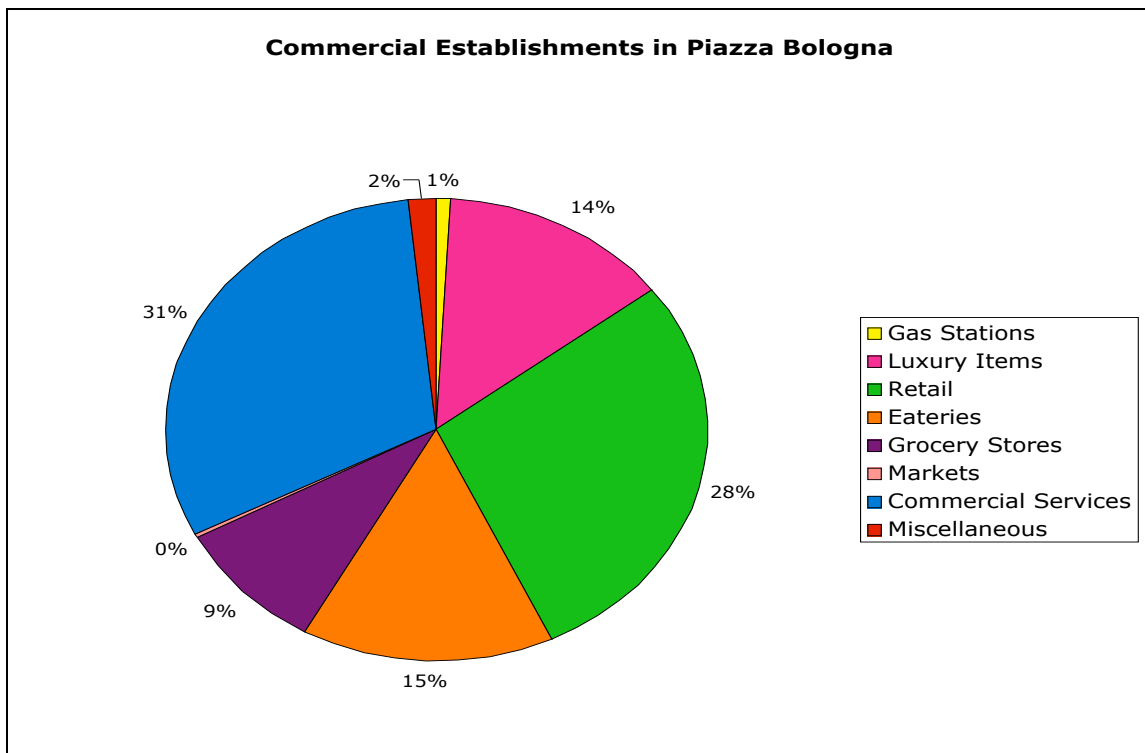
According to the statistics from the Statistics office in Rome, only 34% of Piazza Bologna is employed. The other 66% of the area can be classified as: non-active, unemployed, or searching for their first job. The “Non-Active” category can be further understood by the next graph.

Figure 10



Finally, these two populations together have a discrepant set of needs in terms of services and products. The active and mobile students utilize the neighborhood’s many bars, restaurants, clothing stores, and salons. While the elderly population frequents the commercial places less than the students, they are a significant link in the circle of revenue that brings money back into Bologna because of the large tax base they provide from their more expensive residencies. They also contribute to the business cycle through the money they spend in the luxury sector of Piazza Bologna. The following graph illustrates that commercial activity is diverse and all needs are evenly represented.²¹

Figure 11



What is most notable about the distribution of commercial establishments in Piazza Bologna is how there is no significant lack or absence of any particular service. As of 2005, Piazza Bologna appears to have a stable balance of eateries, luxury goods, retail, markets and more. The variety of services seems to support a range of socio-economic, ethnic and/or cultural groups: high and low end clothing, fast food and upscale restaurants, *gastronomicas* and kosher

²¹ Technical Appendix IV: BMML. Economic Development Plan: Piazza Bologna: Sustainability, Security and Satisfaction. March 7, 2005.

delis. Although a resident Piazza Bologna writer expressed sentiments of annoyance at the high level of commercial activity that now exists in the neighborhood, currently the number of establishments and services is settled at a sustainable state. Furthermore, this thriving economic situation is overall beneficial to the sustainability of the region. For a spatial understanding of Piazza Bologna's commercial activity, please refer to Appendix C.

Various businesses greatly profit from the constant flow of commuters, thus Piazza Bologna continually gains the attention wanted and deserved from both the government and private enterprises.²² If a business were lucky enough to gain space on the main streets of Piazza Bologna, it is with near certainty that they would be successful.

Perception of Security. On a slightly different note, the population density of Piazza Bologna acts as a security element. Although their reasons vary, each member of the neighborhood has safety concerns. Theft, assault, and general security along the streets are a few of the major fears that exist. Judging by the most recent statistical data provided by the *Comune di Roma*, Municipio III is always in the top 25% of Rome's municipios for lowest incidents of violent crimes.²³ Safety in Piazza Bologna, however, can be at least partially attributed to the population density.

A secure community is often the result of a constant flow of people during all times of the day.²⁴ Renowned sociologist Jane Jacobs, stated that the safety of a neighborhood could often be attributed to the presence or absence of "eyes on the streets."²⁵ As her book highlights, residents' preoccupation with the activities that occur along the streets of their neighborhood provide an informal form of watchful concern and security.

Economic activity that services different populations at all times of the day allows for the wary "eyes" to constantly guard the streets of Piazza Bologna. Unlike the EUR, whose streets become barren after working hours have passed, Piazza Bologna appears to have a consistently genial atmosphere of people milling about the streets at all times of the day.

Positive Impacts on the Non-Residents of Piazza Bologna. Also, as mentioned earlier, certain age groups are unable to contribute to the production element of the economics of the area. Their spending patterns, however, are fundamental to Piazza Bologna's sustainability. True,

²² Technical Appendix IV. BMML Int'l. Economic Analysis of Piazza Bologna. March 7, 2005.

²³ 1999, 2000, and 2001 statistical data were included in the report. Mosaico Statistico: Dati Municipali. November 2004. Comune di Roma: Assessorate alle Politiche Economiche.

²⁴ Notes on History Of Piazza Bologna (EUR Central Business and Administrative Office: March 3, 2005)

²⁵ *The Death and Life of Great American Cities*. Jane Jacobs. Publisher: unknown.

this population does not contribute to the production of the region. But the production *element* of the business cycle is fulfilled by the overwhelming non-resident population that commutes to Piazza Bologna daily. Only 10% of all Piazza Bologna residents work in Piazza Bologna.²⁶ Employing those outside of Piazza Bologna helps the consumption side of the business cycle in other areas, as the workers who commute to this neighborhood will often spend their disposable income near their own respective homes.

Positive Impact for Non-Residents on a Macro-Level. Piazza Bologna has another positive impact on a macro-level related to transportation. The area emerged as a transportation hub with a metro stop, a series of bus lines, and *Stazione Tiburtina*.²⁷ In this way, people all over Rome and the surrounding areas can easily access the city and be well-connected to a variety of areas for home and work.

Additionally, allowing for so much residential, professional and commercial growth in one area allows for greater, quicker accessibility, and helps prevent unnecessary expansion. The dense reality of Piazza Bologna curbs the negative consequences of urban sprawl. For the purpose of this exploration, sprawl is defined as land-extensive development that includes large lot developments outside city centers. This development is sometimes criticized for causing “environmental degradation by accelerating the loss of open space, increasing habitat fragmentation, degrading air quality (more miles traveled and hence more emissions), and degrading water quality (increasing impervious surfaces—like roads, driveways, and rooftops—thus increasing the quantity and decreasing the quality of runoff).”²⁸

Immigration Leading to Diversity. The number of immigrant and non-immigrant residents Piazza Bologna must accommodate makes the neighborhood a politically important area. Government officials would benefit from listening to the complaints and wishes of Piazza Bologna, as their response to the issues in this neighborhood would yield favorable election

²⁶ Interview with Carlo Brizzi. March 1, 2005.

²⁷ Mata, J. Management and development of Urban Regions and Its Influence on Consolidated Urban Areas: The Development of the Transport Infrastructures in Spain and the Influence of the Metro Area of Madrid on the Surrounding Cities with the High Speed Train Transport. http://www.isocarp.org/Data/case_studies/446.pdf. Accessed: March 10, 2005. 40th IsoCaRP Congress 2004.

²⁸ “The Influence of Residential Development Patterns on Local Government Costs and Revenues.” Stephenson, K et al. Department of Agricultural and Applied Economics. August 2001.

results. Furthermore, the added diversity in the area gives the region a sense of cultural sustainability.²⁹

This economic and demographic analysis made it clear to BMML that though its community was extremely dense, the composition of the population provided many social and economic benefits.

Recommendation for Maintaining the Positive Effects of Population Density

In order to maintain Piazza Bologna's sustainability, the Municipio should facilitate development as it has occurred for the past few decades by allowing the organic processes to continue without interventions. This includes: keeping Piazza Bologna well-connected, maintaining positive relations between the majority populations, allowing the uninhibited flow of immigrants. It is also important to ensure the neighborhood's attractiveness to different populations by continuing to provide a diverse range of services, and allowing the housing market to self-regulate its prices in order to preserve the mixed socio-economic levels of the area.

Negative Effects of Population Density

For Piazza Bologna, the negative effects of population density are still present, and must be addressed. After a thorough survey and examination of Piazza Bologna, BMML has found that the most pertinent by-products of high activity in this neighborhood include: inequitable housing prices and heavy traffic congestion. Thus, it is the opinion of BMML that rather than trying to curb the effects of population density itself, Municipio III and Piazza Bologna should work together to find solutions for the negative effects these groups must endure while also trying to maintain the positive effects. The following sections identify the specific problems regarding housing and transportation and are accompanied by their respective recommendations for solutions.

²⁹ The Ministry of Refugee, Immigration and Integration Affairs. *Cultural Diversity in European Cities: Combating Segregation and Promoting Diversity*. http://www.inm.dk/publikationer/engelske_publicationer/cultural_diversity/kap03_1.htm. Accessed: 03.28.05

TRANSPORTATION: PROBLEMS AND SOLUTIONS

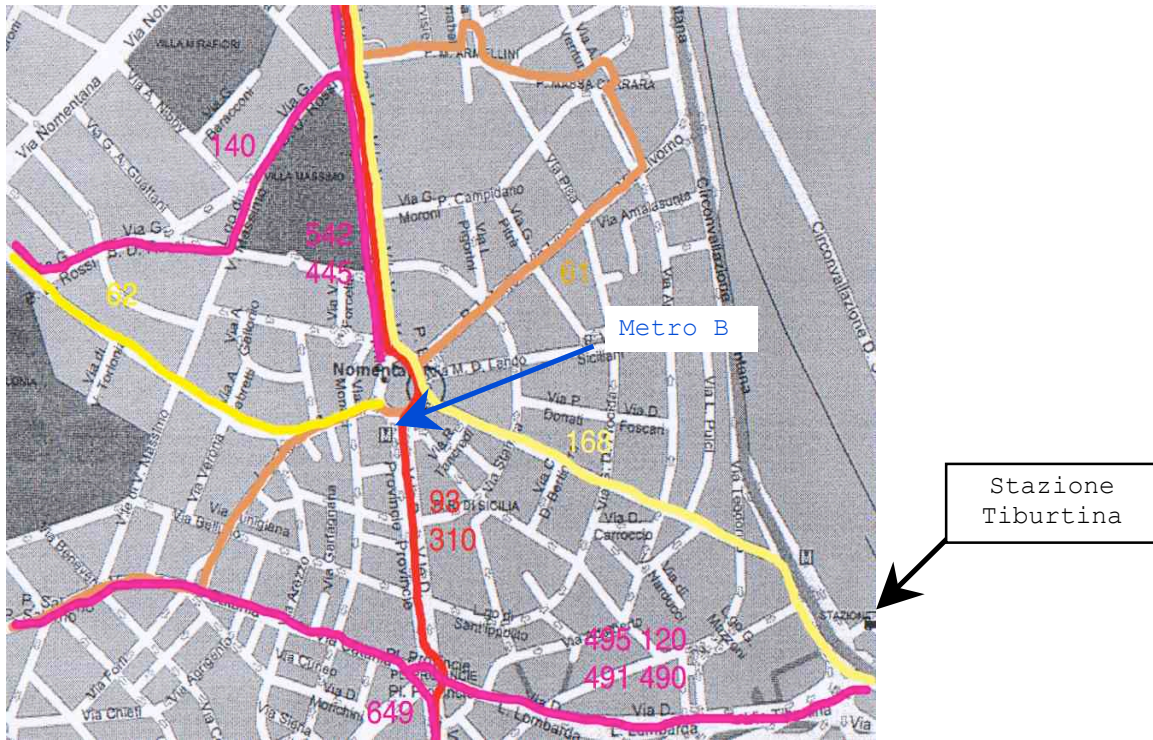


Figure 12: Map of Transportation System

When BMML was first invited to investigate Piazza Bologna, the initial assumption was that population density was a growing problem in the area that needed to be fixed. The first indication of this density was immediately visible with Piazza Bologna's few parking lots, lack of street parking, and heavy congestion. The density exhibited by the transportation situation in the neighborhood led to an interesting question: was the traffic due to residents or commuters? Formal surveys of both residents and non-residents showed that the answer was both.³⁰

Problems Caused by Transportation Density

The above image shows the current transportation situation in Piazza Bologna. As is evident, there are a large number of buses serving the area, 13 in total. The neighborhood is also served by two metro stops along route B, one in the center piazza and one at the regional train station, Stazione Tiburtina. In spite of being a well-connected neighborhood, transportation is one of the biggest problems of Piazza Bologna. Data from transportation surveys are highly

³⁰ Technical Appendix II: BMML Int'l. Transportation Issues: An Assessment of Piazza Bologna's Bus and Railway Systems. February 23, 2005.

consistent with this statement as they indicate that 95% of surveyed people are not satisfied with the current transportation system. This is mainly due to the tremendous amount of people passing in and out of the area.

Since there is such a high concentration of people in a small area, there are a subsequently high number of cars that create congestion. Also, some sources say that at least 90% of the people working in Piazza Bologna are from outside the area, this means that transportation is essential for both the residents (who must commute to their jobs elsewhere) and non-residents (who must travel to into the area). Thirty-four percent of Piazza Bologna residents have full-time jobs. This percentage of people presumably relies on some sort of transportation to reach their employment. This coupled with the influx of people who do not live in the area but work there creates a perilous congestion and efficiency problem for transportation. Furthermore, the student population suffers from a poor connection to La Sapienza from Piazza Bologna. This poor connection encourages the use of cars and motorini.

Thirty percent of survey participants think that buses are too crowded and 46% think that they do not run frequently enough.³¹ These two problems can most likely be solved at the same time because if buses run more frequently there might be fewer people on each bus. In addition, 95% of people surveyed also believe parking to be a large problem.

Pollution. Another problem associated with population density and transportation is that with so many cars coming in and out of the neighborhood each day, car exhaust and noise from traffic are two other side effects that need to be addressed. While an environmental analysis of traffic pollution on Piazza Bologna has never been undertaken, several conclusions have been made on the effects of traffic on Rome and greater Italy. Based on these negative trends, Piazza Bologna should anticipate and try to control its contribution to the air and noise pollution that an increase in vehicles and traffic would cause. Piazza Bologna is subject to the same overall trends that have been observed in the urban areas of Italy and of Rome.

A recent report conducted by the WHO organization concluded that as a general trend, data on Italian cities shows that pollution levels in urban areas are higher than those indicated by European guidelines. One of these pollutants, nitrogen dioxide, is a direct consequence of the worsening traffic problem in Italy. Most cities for which data are available show daily

³¹ For a more detailed analysis of transportation issues, see Technical Appendix II: BMML Int'l. Transportation Issues: An Assessment of Piazza Bologna's Bus and Railway Systems. February 23, 2005.

concentration levels that are higher than $150 \mu\text{g}/\text{m}^3$ (WHO guideline) for several days per year.³² Benzene, another pollutant, is emitted into the air from petrol-run motor vehicles, and is much higher in recent decades. This monocyclic aromatic compound is also a carcinogenic. The WHO reported that the percent of yearly attributable deaths due to PM10 (particulate matter less than 10 microns in diameter), is 4.7%. Based on this figure, the air pollution caused by traffic should be a top concern for Piazza Bologna residents.

Traffic not only causes air pollution, but also noise pollution. Noise pollution has been found to cause communication disturbances, rest and sleeping disturbances, as well as annoyance. Long-term effects include negative impacts on a person's well being. Noise pollution is a dire concern for Piazza Bologna because it increases with the number of inhabitants, as well as with the proximity between neighbors. As a dense neighborhood, Piazza Bologna must consider these factors. It has been evaluated that corresponding to the road surfaces of Italian cities with more than 300,000 inhabitants, 69.2% of the population suffers noise emissions higher than 70 dBA. This level is indicated as a threshold above which psychosomatic effects can occur.³³

The major concern regarding traffic pollution is the effect it has on health; international literature has consistently shown an effect of environmental pollution on various tumors, especially lung cancer. By applying the available estimates, residents of urban areas have an increased risk of between 9 and 33% of contracting lung cancer, regardless of whether or not they smoke.

Thirty percent of those surveyed in Piazza Bologna are concerned with the side effect of pollution and 23% are concerned with the side effect of noise. The cause of the parking problem comes from both residents of the neighborhood and commuters driving to the area. Residents may also own more than one car, leading to many cars vying for the same parking space. Each of these issues will be addresses in detail in sections to follow.

Problems Caused by Parking Congestion. The large parking problem in Piazza Bologna is caused by both residents and commuters to the neighborhood. Residents of the area

³² www.euro.who.int/healthimpact/MainActs/20040830__1

³³Ibid.

may own one or more cars and typically park them on the streets. They are given permits which allow them to park for free on private streets whereas commuters try to illegally occupy these spaces. The following data obtained through transportation surveys shows how many cars residents own.

Table 10

Car Ownership for Piazza Bologna Residents		
Number of Cars	Persons	Percentage (%)
0	11	58
1	7	37
2	0	0
more than 2	1	5

Solutions to Transportation Density

Expansion of Stazione Tiburtina. To accommodate the large number of commuters, the influx of non-residents, and the wide range of needs for different bus lines, expanding Stazione Tiburtina will help alleviate these problems. The proposed expansion of Stazione Tiburtina, to imitate the function of Termini, will have a large affect on the number of people coming into and out of Piazza Bologna. As many riders were not satisfied with the frequency of buses currently in operation, this initiative will increase the frequency and number of buses as well as more space to accommodate the community.

As more riders drive to Stazione Tiburtina, the need for parking will increase, thus exacerbating an already difficult problem. One way to deter an overabundance of parked cars is to offer permits to those who commute every day and charge high fees for parking in the train station parking lot.

More Parking Garages. One possible solution to parking on the already crowded streets of Piazza Bologna would be to build a parking garage on the outskirts of the neighborhood. The parking lot at Stazione Tiburtina could be expanded by building an above ground parking garage on the existing lot. This parking lot could be reserved for only commuters in order to remove their cars from the street. This lot could also be expanded downwards, creating a multistory underground/above-ground parking lot. Though building a new above- ground parking garage in other areas is not a possibility as there is no more space available, the Municipio could build an underground parking garage.

Highly sophisticated underground parking garages already exist in areas around Rome and they operate with a special card that is swiped to park the car and again to retrieve it. These garages are designed and implemented through a public-private venture; the municipio could fund the garage and issue permits to residents of the neighborhood, thus removing their cars from the streets. Because Rome is rich with antiquity, it would also be necessary to conduct archeological surveys to make sure that there is nothing below the soil. Possible locations for underground parking garages include the area beneath the existing parking lot of Stazione Tiburtina and other areas near the railroad tracks. The points on the map below are not currently used for anything; they are mere spaces between the railroad tracks and the adjacent streets.

Figure 13 : Map of Possible Locations for Parking Garages



Another step the municipio could take is to charge a small fee for parking the first car belonging to a resident and then a much larger one for additional cars. This practice would discourage the parking of multiple family cars in the neighborhood. If parking permits are ever issued to commuters as well, residents will receive permits first until all residents’ needs are satisfied.

To account for the commuters’ impact on the parking situation, the municipio could begin an aggressive towing campaign to discourage illegal parking. The municipio could find

funds to do this from both towed cars' retrieval cost as well as from the cost for parking in the neighborhood. In order to encourage legal parking along the streets, permits could be sold at a higher rate to commuters. Another possibility would be to create two parking garages, one for residents and one for commuters, with the cost for commuters being higher than the cost for residents. This would discourage commuters from driving into Piazza Bologna.

Car-Sharing. If Piazza Bologna is to be a sustainable community, it cannot contribute to this serious environmental issue. While the concern that excessive car use is unaesthetic and creates parking difficulties, the effects of pollution are at the top of BMML's concern in terms of Bologna's future and sustainability. The incentive of a healthy community should drive residents to reduce their dependence on cars, thus leading to a more sustainable neighborhood on all levels.

The mayor of Rome, in collaboration with ATAC and an environmental association of



Italy, recently installed a car-sharing program in Municipio III on 1 March 2005. This initiative has taken place in two cities, Rome and Milan. There are currently five parking spaces and ten cars in the program; the cars can park within the blue line zones, typically reserved for permit parking for free, as well as enter ZTL areas without charge. This policy will encourage residents to use the service as a substitute for a private

car and to possibly stop using private cars altogether. This will help with the parking problem as it will decrease the number of cars in the area.

As support for car-sharing increases and more cars are added, it could easily contribute to a reduction in the number of cars in the neighborhood. In order for car-sharing to succeed, customers have to be satisfied with the performance and accountability of the network. Existing car-sharing networks, such as FlexCar³⁴ and ZipCar³⁵ in the United States, have shown that car-sharing can be very successful and perform satisfactorily. For more information about the car-

³⁴ For more information, visit: <http://www.flexcar.com>.

³⁵ For more information, visit: <http://www.zipcar.com>.

sharing program, visit <http://www.atac.roma.it> and click on the link for car-sharing. As car-sharing has already been implemented in Piazza Bologna, the municipio should be aware of the costs and benefits of such organizations. It will take time, however, before the real costs and benefits of the program can be determined.

Installation of Bike Path. Although Piazza Bologna offers several types of public transportation, the most convenient way to travel to La Sapienza, the nearby university, is still by private automobile. This only further exacerbates traffic congestion. In order to decrease traffic and expand the connection between Piazza Bologna and the University of La Sapienza, a bike path could be installed along the old disconnected tram routes along Via Provincie. This would improve connections for students and also promote the use of alternative forms of transportation over cars. If the route is successful, the bike paths could be expanded to other areas of Rome, thus improving connectivity for the city and decreasing the amount of pollution created by car exhaust.

The following are tables of the survey results that relate to a possible bike path in Piazza Bologna.

Table 11

Would Piazza Bologna Residents Use a Bike Path?					
	Under 25	25-35	35-65	65+	Total
No	1	0	1	2	4
Yes	5	3	0	1	9
Percent No	25	0	25	50	31
Percent Yes	55.55	33.33	0	11.11	69

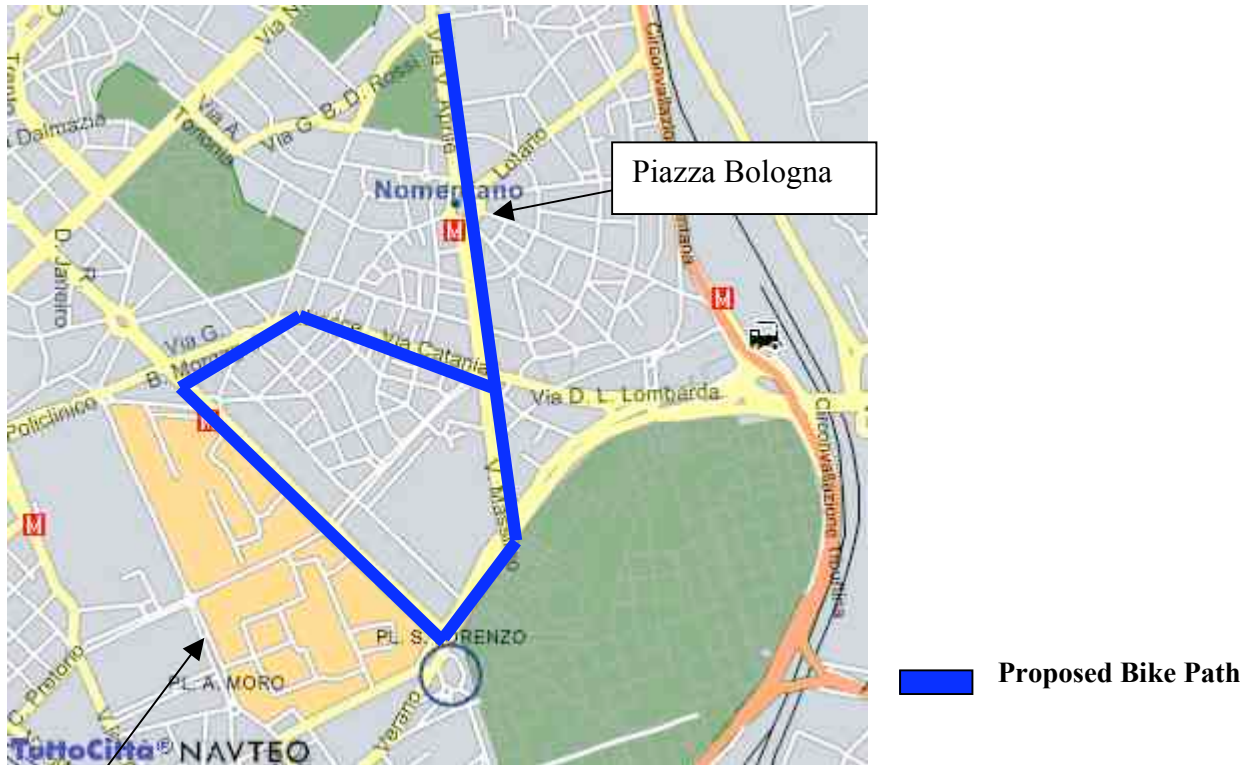
Table 12

Piazza Bologna Population By Age 1991	
Age	Percent of Population
Under 25	23.75
25-35	15.23
35-65	38.23
Over 65	22.78

The data reported in the above tables suggest that overall nearly 70% of all survey participants would use the bike path if installed. Furthermore, the results yield a broad range of people who would use the bike paths. Nearly forty percent of adults from ages 35 to 65 would utilize such a method of transportation, while almost a quarter of those over the age of 65 would do the same.

A proposed bike path, using old tram routes and wide streets, is displayed below. The path goes south along Viale V Aprile and Viale Delle Provincie turns onto Via Tiburtina, goes northwest along Viale R. Elena, and finally turning onto Via G. B. Morgagni, Via Bari, and Via Catania.

Figure 15: Map of Proposed Bike Path



Area of La Sapienza

This bike path will encourage residents of Piazza Bologna to use bicycles along the main streets rather than cars. If the path is successful, it can be expanded to include other streets of the neighborhood and possibly be expanded into more of Rome.

HOUSING PROBLEMS AND SOLUTIONS

The History of Housing in Piazza Bologna

As mentioned earlier, Piazza Bologna's current density issue is the result of a history that created a set of zoning laws now unsuitable for its current population state and housing needs. In order for Piazza Bologna to remain a sustainable and desirable place to live, while also accommodating the present resident population, the second most important facet to address is housing. Piazza Bologna's housing history begins in the year 1909, when Piazza Bologna, along with four other areas in Rome, was identified as a neighborhood where expansion would take place in the form of a central square with radial roads. The first establishments were the large pharmacy and the fascist-style post office in the central piazza. Like the post office, the rest of the neighborhood was developed under a fascist style and agenda during the first half of the century.³⁶

In 1922, Mussolini came to power and promised Italians that his rule would bring Italy a type of unification and power similar to that of the Roman Empire. Architecturally speaking, this took form in an ambitious demolition and construction program with the goal of constructing a city that conveyed strength and unity. Piazza Bologna exhibits a typical example of fascist ideology spoken through architectural terms – the wide boulevards of Via Aprile XXI and Via Province, the expansive central piazza, and the modernity of the high rise apartment buildings were all part of a fascist agenda. The spacious apartments were also important to the philosophy of fascism; Mussolini encouraged large families in order to create a supreme and powerful race of Italians, and these apartments would be perfect for accommodating the increasingly large population.

After World War II, these philosophies lessened. The structure of Piazza Bologna, however, remained. Expansion of Bologna's radial center took place after World War II, and density reached its peak in Piazza Bologna during the 1950s when building speculation was rising. Government officials predicted that the population of Rome would increase to 5 million inhabitants when in actuality, the population leveled out at only 3 million people. The significant discrepancy is largely responsible for the high density of surrounding neighborhoods such as Piazza Bologna. Concomitant of this development was the influx of many of the

³⁶ City Hall: EUR Officials. Interview with Roma's municipal officials to ascertain housing information.

residents that inhabit the homes of Piazza Bologna today. Classified as a historic city, this neighborhood has been declared an invariance zone where further development is forbidden, complicating attempts to alleviate overcrowded homes.

Although Piazza Bologna's history set the tone for its structure, the zoning laws that were suitable then are now inappropriate for its current function. That function is to accommodate the majority populations that occupy Piazza Bologna, namely the students and the elderly. The zoning law that creates the largest obstacle for these populations is the one which prohibits the subdivision into units smaller than 150 square meters. This zoning law creates a problem because the fascist regime left Piazza Bologna with apartments that were mostly this size or larger. This size apartment, however, is unsuitable for both the students as well as the elderly. For student renters, the apartments are large and thus costly, forcing renters to defer the cost with a greater number of roommates than is allowed by law. For the elderly, the apartments require live-in assistance if they reside by themselves, thus bringing about an increase in immigrants working as aids and nurses who board. Elderly that are not boarding immigrants in their spacious apartments are also contributing to the density problem as well; in an overcrowded neighborhood, large apartments are an inefficient use of space.

The Current State of Housing Prices

According to representatives at *Gabetti*, and *Technocasa*, two of the major real estate agencies in Piazza Bologna, living in this neighborhood can be quite expensive. Most people rent, because in order to buy an apartment in Piazza Bologna, one would have to be able to afford 4,000 to 5,000 euros per square meter (approximately amounting to 400,000 euros for 100 square meters). Renting, however, is also very costly. The estimated median price of rent per month of 100 square meters is 3,900 to 5,300 euros. According to the *Stimacasa* real estate representative, a two bedroom apartment, (which would be smaller than 100 square meters), would range from 1,000 to 1,400 euros, and can go all the way up to 2,500 for just an attic. Renting a mere *bed* in an apartment costs about 300 to 400 euros.³⁷

Even for fairly well-to-do residents, such as those interviewed, renting in this area is quite expensive. Fifty square meters of space on the Northern side of Piazza Bologna is about 815

³⁷ Technical Appendix III: BMML Int'l. Who Determines the Face of Piazza Bologna: A Demographic Analysis of Piazza Bologna. February 28, 2005.

euros per month, not including other expenses. While expensive, this is actually more affordable than central Rome, where 80 square meters is on average 4,000 euros. Interestingly, a forty-year long resident of Piazza Bologna was interviewed, and stated that he has been lucky enough to benefit from rent control. Thus, his 180 square meters home has been at 1,500 euros per month, which could explain how the elderly residents can continue to live in such an increasingly desirable and expensive area. However, rent control in most other cases has recently been abandoned as a viable housing policy. Since this fact is a recent development, the ramifications of it are still unknown. In the future, Municipio III should monitor closely how the disabling of rent control will effect their older population.³⁸

The Consequence of the Expensive Housing Market. The combination of the expensive housing market with the two populations that currently dominate Piazza Bologna (students and elderly) produces several threats to Piazza Bologna's sustainability and contributes to the density problem. The two most important concerns in Piazza Bologna's housing situation are illegal subletting and affordability.

Illegal Subletting and Affordability. Each real estate agency expressed their concern with illegal subletting, citing it as a major reason why their establishments lose business. This may have extreme consequences for the region. Typically, owners of homes in Bologna are the elderly. While one agency stated that the vacancy rate in this neighborhood was less than 1%, another explained that there were no vacancies at all in Piazza Bologna. This, compounded with the fact that there is no more room for residential construction, means that the rental rates for Piazza Bologna could increase even further. Because each housing unit's rental space has become all the more precious, owners may feel they can charge whatever they would like — without the help of real estate agencies.

Illegal subletting occurs because the housing stock is scarce, and thus the prices are high. One possible source of the diminished housing supply could stem from hoarding. Architect Ferruccio Rossini, the assistant of territorial planning for Rome, explained the negative impact that real estate hoarding has on housing prices. Several real estate funds choose to keep portions of their housing stock unavailable for rent or ownership, artificially driving up the prices. It is possible that the older residents of Piazza Bologna could be living in second homes in different

³⁸ Technical Appendix III: BMML Int'l. Who Determines the Face of Piazza Bologna: A Demographic Analysis of Piazza Bologna. February 28, 2005.

areas but still holding on to the property they own in Piazza Bologna. Having empty apartments in such a desirable area could certainly make prices higher than they should be.

Housing Solutions: Policy Recommendations to Address the Density Problem

Increased Regulation. Several policies simultaneously implemented, however, will help fix this situation. First, specific regulations need to be implemented on the number of persons that can occupy a one person, two person, three person (and etc.) apartment. It needs to be made very clear when a tenant signs a lease that they cannot bring in spouses, families, or friends to live with them once they have committed. BMML is not aware of any type of existing regulation. Secondly, if this regulation is violated, a severe punishment needs to be inflicted on the tenant, namely, a heavy fine. No real estate agent mentioned the penalty system for illegal subletting.

Increased Affordability. In order to increase affordability, the hoarding of property must decrease. If there are apartments that are empty but privately owned, it would be reasonable to charge a higher tax on empty apartments in order to simultaneously discourage the practice and increase revenue.

Subdivision. In addition to these policies, the obsolete law on subdividing property should also be eliminated. While not all of the larger apartments should be subdivided (it is important to maintain a high-end sector), many of them need to be converted. These apartments are too large—due to mobility and maintenance issues—for the single elderly citizens that inhabit them. Furthermore, they artificially deplete the supply of available housing. Most likely the few vacant apartments in Piazza Bologna are these unaffordable, larger ones. Subdividing them—within reasonable means—will create availability as well as affordability. By amending this current policy, the university will have another avenue to obtain additional units to convert into student housing. Reconsideration, however, of the current policy is important for gradual integration of increased numbers of student housing spaces.³⁹

More Student Housing. Another way increased regulation could be achieved would be through the conversion of all the housing intended to be *Casa Popolare* housing into student housing. This policy change would have many positive effects: it would encourage students to

³⁹ Technical Appendix III: BMML Int'l. Who Determines the Face of Piazza Bologna: A Demographic Analysis of Piazza Bologna. February 28, 2005.

live in these apartments legally rather than living in the more expensive areas and having to illegally overcrowd in order to afford the cost. It would also concentrate the students into one area so that real estate agents could more easily and more efficiently deal with a homogenous population with unique characteristics. Finally, it would keep the students in an area separate from the elderly who live in the Northeast, which would decrease the chance of disturbance incidences between students and seniors. Piazza Bologna will most likely become increasingly populated with students who will occupy the lower-end housing. The Municipio, however, should focus on retaining the senior citizen residents as they bring revenue into the community through their higher-end real estate and commercial activity. The diversity of Piazza Bologna would *not* be threatened because as of now, it exists through the interaction of different groups in the public parks and piazzas. Most interactions do not occur on the residential streets, and already housing is fairly separated by tiers (and thus by income) as demonstrated by the Residential Housing Map in Appendix B.

Student Housing Authority. While both the elderly and the students compose a significant proportion of the population, it is likely that the elderly have a much heavier impact on the housing policies due to their greater financial influence. A student housing authority would help adjust this imbalance. If a student housing authority was created in Piazza Bologna, it could mediate between the university and the town to help manage the *Casa Popolare* housing and represent students' interests in the planning forum. This authority could provide information to students about housing in Piazza Bologna, which would ensure that the flow of students into the area continues because they are an important source of Piazza Bologna's economic stability.

The housing authority could establish a website which provides a list of available housing in the Piazza Bologna area, general orientation about the Piazza Bologna area, answers to off-campus housing questions, and assistance to students in starting their search. As it would be a non-profit organization, the housing authority would not endorse a single real estate agency; it will simply guide students through the complex web of realtors, leases, and other difficult situations that first-time renters often confront.

With the student housing authority in place, Piazza Bologna would be guaranteed that their student population would have a good relationship with the neighborhood and continue to contribute positively to its economy and existence. Furthermore, the student housing authority

can act as a lobby on behalf of the entire student population, which would consolidate the needs of the group, as well as provide proper representation.

Models for Student Housing Authority. Several examples of student housing authorities exist. Municipio III should study each model before composing their own. In Venice, the student housing authority is forbidden to assist students looking for housing outside the designated dormitories. According to one representative, the law is in place to prevent unfair competition with private sectors. If the Venetian university would like to establish a partnership with private homeowners in order to rent out their spaces to students, a special contract that comes at a considerable financial and time cost is required. Therefore, although the dormitories have been relatively successful, the black market for illegal subletting persists to some degree throughout the city. In order for Municipio III to prevent such consequences from arising, it will be in the best interest to establish the said contract in conjunction with the student housing authority. By considering the results of the Venetian initiative and accounting for these possibilities in advance, Piazza Bologna will be guaranteed that their student population will have a good relationship with the neighborhood and continue to contribute positively to its economy and existence.⁴⁰

The infrastructure of the student housing authority and acquisition of an appropriate number of housing spaces are the launching points for Municipio III and La Sapienza. Venice's existing administrative structure should be emulated. ESU (Erasmus Student University) is an organization that defends and supports the "Right to University Studies." It was ESU who supported the student housing initiative of Erasmus University of Venice and oversaw the development of the infrastructure. Currently, the university has three administrative offices that employ 80 staff members. This includes a central office where assistance can be provided to concerned or interested students. Of 20,000 enrolled students, the university receives 1,000 applications for student housing, but can provide rooms for 20% of those students. Due to the limited availability of university dormitory housing, allocation is based on demonstrated financial need. In 1982, regional funds were established to aid in the development and maintenance of these student-housing units. Municipio III should also investigate founding a similar financial system.

Venice has effectively taken measures to incorporate and account for their large student

⁴⁰ Meeting with Venice Erasmus Student Life Coordinator, April 2005.

population through the development of dormitory style housing for a small percentage of their students. Support from the European Union has been made to Venice and could also be obtained in Piazza Bologna, in the form of EU grants specified towards assistance in establishing student housing. In developing the student housing authority, this existing example of successful student housing initiatives has been used as a point of comparison. Piazza Bologna can learn from their success and avoidable shortcomings.⁴¹



Nuda Proprieta. In light of the student housing situation, BMML has considered a number of solutions. One highly feasible alternative to the current state is utilizing the *nuda proprieta* real estate. This term refers to the process of buyers purchasing a home with an elderly population still present, and then claiming the home after the elderly pass away. The majority of people who request housing are young people, especially young couples and single students. Rather than attempting to implement an entirely new policy, BMML recommends that the

⁴¹ Meeting with Venice Erasmus Student Life Coordinator, April 2005.

government or the University of La Sapienza work with a Student Housing Authority to purchase *nuda proprieta* throughout the next five years. The property can be chosen through a variety of criteria, based upon the needs expressed by the Student Housing Authority, and the means of the University and government officials taking part in the process. After the purchases have been made, and the housing becomes available to students, the students can then rent from the government or school at a decent rate. This joint venture will ensure fairly-priced student housing and greatly diminish the negative presence of illegal subletting in the future.

While the Student Housing Authority is attempting to organize itself and solidify support from city, university and government officials, the investment into *nuda proprieta* will act as the first of many steps in improving the housing situation for students. Furthermore, in making this investment, the University and government will have a stake in what happens in the days to come. Converting large residencies into student housing by way of the government and University will create an environment where the students feel financially protected and fairly represented in the community. If the government or University plays a greater role in the housing process, even with simple measures such as purchasing the *nuda proprieta*, there is a smaller likelihood for illegal subletting, and consequently, better accommodations for the many students who live in the neighborhood.

THE PARTICIPATORY PLANNING PROCESS

Implementation of all the above programs requires input and communication between Municipio III and residents of Piazza Bologna. During the 1980s, a leftist administration initiated the development of participatory planning programs. A forum where residents' concerns and ideas for improvement could be heard and addressed had already been established through Article 11 and Article 2. These sessions were referred to as "neighborhood workshops". Through these sessions, a neighborhood contract is created that prioritizes all interest groups' concerns. In 1997 the Ministry of Public-Works made funding available for project proposals through competition. Obtaining such funds will be a critical project for Municipio III to carry out BMML's policies. In some instances, one contract alone provides the chosen project 5 million euros.

Municipio III established a participatory planning initiative that attempts to involve the residents of Piazza Bologna and neighboring San Lorenzo in the policy decision-making process. Part of BMML's recommendations on improving the sustainability of Piazza Bologna included investigating how well the current participatory planning worked.⁴² However, BMML encountered some difficulties obtaining information regarding this issue. Implementing aforementioned recommendations requires that the current participatory planning system in place work effectively and properly represent all the residents of Piazza Bologna in proportion to its population. Furthermore, the process for the meeting will include organization of the stakeholders and representatives into several different round tables where initial brainstorming about concerns and suggestions for improvement can be brought out. Following the brainstorming step, the smaller groups can all reconvene as a whole and, as a single group, prioritize the concerns. Throughout the entire process, a facilitator must ensure that each representative has equal opportunity to voice their respective political and social interest groups' concerns in an orderly fashion. It is important not to prep the participants as the element of surprise is beneficial to the brainstorming process.⁴³

According to the Local Sustainable Participatory Development office, funded by the Comune di Roma, the majority of the people who participate in meetings are elderly or retired.

⁴² Interview with Architect Borghi, Municipio III Office. February 2, 2005.

⁴³ Local Sustainable Participatory Development. Interview with management director, April 27, 2005.

This means that Piazza Bologna can rely on the elderly population being fairly represented in meetings, but must make a concerted effort to draw the younger population into the process. This is precisely why a Student Housing Authority is necessary.

An egalitarian forum for participatory planning can only lead to improved relations amongst the variety of interest groups that occupy the neighborhood from the non-resident employees of commercial establishments to the constantly changing student population that sustains them as well as the elderly, predominantly female, property owners. Provision of such a conference amongst different parties will ease future integration conflicts as well as allow consideration of anticipated frustrations to be resolved.

According to our neighborhood contact, Carlo Brizzi, a resident of Piazza Bologna for over 40 years, as well as his daughter Cecilia, never once attended a participatory planning meeting. The contacts BMML has made almost appeared to scoff at the notion of this planning process and expressed no interest in attending such a meeting. This evidence emphasizes the need to improve and refurbish the image of the current participatory forum as well as the need to better advertise the meetings. Part of reorganizing the client's the current program includes the consideration of establishing a fund to assist in carrying out approved policies and agendas. If the existence of financial aid is made more public, the client may successfully incite more enthusiasm and increased attendance of Piazza Bologna constituents. Allocation of 20% of budget funds to participatory planning decisions has already been established in Municipio V and IX, and the client should consider this option as well.

As mentioned earlier, in Venice European Union—Urban Law—funding was made available towards its student housing initiative. While the Urban Law distributes its funds towards housing, it is more inclined to allot money towards alleviating issues of urban decay in peripheral areas. In addition, 60% of ministry funds are allotted to residential issues and the other 40% set aside for infrastructure. Piazza Bologna therefore has the potential to obtain the necessary funds to successfully see BMML's policies through for both the bike path as well as the conversion of existing housing stock into student housing. In order to attain this financial support, Municipio III must comply with participatory planning procedures in order to gain the neighborhoods consent and support for the policies outlined in this final report.⁴⁴

⁴⁴ Territorial Support Office, April 28, 2005.

An effective, open mode of communication between the Municipio and its residents will increase multilateral satisfaction when any changes are made to the infrastructure of Piazza Bologna. By welcoming the voices of the different interest groups that influence and comprise the neighborhood, potential conflicts and problems from developing policies or adjusting existing policies can be avoided.

DIVERSITY AND DENSITY: PIAZZA BOLOGNA AS A MODEL

Piazza Bologna is initially perceived as an incoherent conglomeration of incompatible residencies and commercial establishments. Yet, this historical, vibrant, self-sufficient neighborhood has been successfully functioning for nearly a century. Judging by initial observations, it is difficult to understand what the driving force is behind the current sustainability of Piazza Bologna. BMML has discovered that this force is density and diversity. The benefits of diversity can be seen simply through casual social interactions in the streets. The power of density is not initially visible, and may in fact be seen as negative. BMML has discovered that it is not density itself that is negative but rather the effects of density.

Density can manifest itself in positive and negative ways, depending upon the demographic composition and nature of the neighborhood. High density in Piazza Bologna is a result of the recent increase of the student age population and the elderly, due to the areas ability to offer a wide range of services specifically to these groups. BMML has discovered that the demographic composition coupled with the density creates an economically, culturally, and socially sustainable environment.

The positive effects of Piazza Bologna's density are unfortunately accompanied by negative by-products. BMML found that the main ailments occurred in the transportation and housing sectors. High density creates a demand for a well-connected transportation system, but as a transport hub, the area suffers from congestion and inefficiency. Similarly, high density creates a safe and well-serviced neighborhood for residents, yet its attractiveness creates a demand for shelter that leads to over-priced and inadequate housing options. Municipio III's delicate position is to address these negative by-products while preserving the aforementioned benefits of density.

Thus, BMML policy recommendations target transportation and housing problems. In the area of transportation, the policies seek to alleviate the congestion by expanding Stazione Tiburtina, establishing a bike path, and encouraging the car-sharing program. In the area of housing, the policies seek to curb illegal subletting and increase affordability through increased regulation, the legalization of subdivisions, the promotion of *nuda proprieta* and the establishment of a Student Housing Authority.

Demographics and economics are mutable elements of a neighborhood. Thus, the effects are constantly evolving. In order for Piazza Bologna to continue to effectively identify the negative effects while simultaneously maintaining the positive ones, BMML urges Municipio III to ascertain both conditions through participatory planning. This method of planning ensures that neither negative nor positive realities be overlooked. Be aware that the efficacy depends upon the integrity of the process.

By following these recommendations Piazza Bologna is well on its way to retaining its reputation and character while discarding its less desirable attributes. While these less desirable attributes are specific to Piazza Bologna, it is still a model neighborhood in its growth and development. Piazza Bologna is a model example of urban development in the European sense. Its density and connection to the city that it extends from make it a successful, self-sufficient solution to urban sprawl. As Rome and other European cities continue to expand, it would prove useful to refer to Piazza Bologna as a model of healthy growth and sustainable development. Although some models may work because of the presence of a homogenous population, this is not the case for Piazza Bologna. Because of its natural evolution, which brought about density and diversity, Piazza Bologna is now a helpful reference when analyzing other European cities. Ultimately, the diverse, dense nature of Piazza Bologna is what makes the neighborhood a paradigm for city planning.

TECHNICAL APPENDIX I

Research on Population Growth and Sustainability of Quality of Life in Piazza Bologna

Proposed Professional Team

In order to help Municipio 3 formulate the best solution to Piazza Bologna's complex density issue, BMML Int'l has gathered four of the brightest, most competent, and most determined employees. These four staff members have a deep understanding of city planning issues and a great deal of experience within this field.

Rebecca Bateman brings hard work and dedication to BMML. Her strong work ethic, ability to deal with stressful situations, and sense of responsibility are an asset to the team. She has knowledge of transportation systems and has done a study on the feasibility of car sharing in Ithaca, New York. Rebecca also has also studied the environmental conditions and sustainability of Kathmandu, Nepal and developed a plan to improve the air and water quality with her group members. These two projects have given Rebecca a background in analyzing current situations as well as developing plans for the future. Rebecca works well with others to create quality work for clients.

Rebecca Liu holds an eagerness and dedication to improving urban living that will inevitably bring a contagious enthusiasm to BMML Int'l. As a very organized, diligent and conscientious worker, she strives to create products of the utmost quality. Her passion for interacting with others and learning about different cultures will also prove to be an asset to the firm. As an Urban and Regional Studies major, Ms. Liu has learned a great deal about the pre-existing problems of urban centers, as well as their possible solutions. Furthermore, her previous occupations span from customer service to think-tanks to grass-roots organizations. This range of experiences will help her confront any new assignment with confidence and perseverance. Her past research in transportation, housing, Asian American culture, and social movements like the Living wage has also prepared her for efficient, exciting consulting tasks. Finally, Ms. Liu's commitment to promoting diversity and equality will greatly contribute to BMML's goals.

Hannah Marcus is dedicated to creating an atmosphere that is historically, culturally and environmentally rich. Her recent publications reflect her keen ambition for both historic preservation and public policy. Ms. Marcus has strong writing and research skills, which will prove to be essential to the BMML Int'l team. Ms. Marcus has had tremendous public service experiences with various populations, ranging from the homeless to the geriatric population. Her people skills will lend themselves very useful as much of BMML Int'l interacts with the community. Ms. Marcus' relevant coursework and job experience will also provide BMML with the necessary knowledge to make sound recommendations for clients. Since Ms. Marcus' coursework revolved around Urban and Regional Studies, she is particularly well-fitted for examining urban neighborhoods. Her amiability and positive risk-taking personality also not only make Ms. Marcus a wonderful consultant, but also a joy to work with.

Research Design

The problems of high population density in Piazza Bologna can be divided into the following categories: physical, social, and economic. This research design should delineate how to efficiently approach the Piazza Bologna situation.

Physical

Transportation. The fact that Municipio 3's density is higher than that of Central Rome is strong evidence that there is a population density problem. In Central Rome, the density is 8,550 people per kilometer squared, while in Municipio 3, the density is 9,609 people per kilometer squared. The high density of Piazza Bologna could lead to a change in the amount of cars, and consequently, parking availability and traffic. To understand the affect population density has on transportation and to understand the relationship between private automobile use and public transit, data must be collected and analyzed. Ideally, the time schedule, frequency and ridership of each public transportation system that runs through Piazza Bologna would be observed and analyzed. These include the bus line, the Metro Line B, and the nearby Stazione Tiburtina train. While simply counting the number of people that get on and off the bus would be telling of its popularity, the unpredictable nature of monitoring transportation will most likely yield inaccurate results. For example, many people who ride the bus system do not bother stamping their ticket, and thus cannot be accounted for. It will most likely be that public transportation information will come from the Metro, where ticketing is severely enforced.

Researching the effect of the highway on the area is also crucial. It would be particularly helpful to know the rush hours and where the major exits are for this highway. This will answer questions such as: are many commuters coming from distant regions via the highway and parking their cars in Piazza Bologna and then using public transit? To complete this section of the report, collecting data on the availability of parking for both Piazza Bologna residents and visitors will be essential. A very helpful source would be a list of parking permits, parking meters and a source that gives the number of parking lots in the region. If this is not available, both an informal survey (interviewing residents) and a formal survey (with a set questions, inquiring to the availability and use of parking spaces) will be conducted.

Open Space. It will be necessary to assess what land can be used for green space. To do this, a study of land use in Piazza Bologna combined with a survey of what sort of green space is most desirable must occur. The study should pay special attention to land that is not being used to its full potential (such as park that has informally been turned into a dump due to its non-use and location). Such spaces can be identified and readily converted into more attractive sites.

Social

Political Views. Ideally, gathering information about Piazza Bologna residents' political party affiliation would come from voter registration. However, party lines have changed over the past few decades, and it is difficult to accurately determine what each resident truly believes. Thus, a survey must be conducted that does not rely on party lines, but instead, reflects the social and economic decisions of each surveyed resident. Although it is unclear at this point precisely which questions will be asked, they will focus on actions and lifestyle.

Participatory Planning. Since participatory planning is a critical component in making decisions in Piazza Bologna, it is necessary to observe what sort of process the neighborhood uses currently. This task can be accomplished by reviewing planning meeting minutes, possibly attending participatory planning meetings, and then, analyzing the information collected.

Demographics. It will be necessary to use census data from the inception of Piazza Bologna (in the 1930s) to as recently as possible. This will allow an accurate track of demographic trends and patterns of the region over time. Additionally, census data will be used to approach the economics aspect of research. Our source will most likely come from the Statistics Office, but a member of Municipio 3 is currently searching for other, more accessible sources. The following is a list of data that must be collected and analyzed.

- Housing density: how many residents live in one household and one apartment building?
- Population differentiated by ethnicity: what are the major and minor ethnic populations of Piazza Bologna? Are there concentrations of each ethnicity in certain areas?
- Population differentiated by socio-economics: where do various income level families live? Does it match the housing categories we previously created?
- Population per square meter: this is necessary in order to gain a general numeric sense of the density in Piazza Bologna.

- Population differentiated by religion: what are the major religions of the region? Do various religious factions congregate in particular areas?
- Labor force: what percentage of people in the area is in the labor force? How far do they travel to reach their place of work?

Economic

Employment. Tremendous population growth will lead to a greater need for stores and services in the region. Piazza Bologna is under physical constraints as new buildings cannot be built and thus must work with existing space; population growth leads to a demand for jobs and services. For this step of the design, an investigation of Piazza Bologna's must be undertaken in order to remain sustainable and adapt to the effects population growth. It will be essential to use census data to determine the number of people in the labor force and the distance they travel to work, as well as the range of economy activity that occurs in Piazza Bologna, and what sort of economic linkages perpetuate the neighborhood's viability. This information will be important in determining the economic sustainability of the neighborhood. Another necessary step will be to see how taxes are allocated. Gathering data on where taxes are spent for public services, such as open spaces, garbage collection, street maintenance, public schools, and so forth. Also, collecting data from different time periods is necessary, as it provides a comparison of spending patterns, which will be most informative.

Subaffitto. Another essential research step is to study the "subaffitto," or, the illegal subletting of any residential area, ranging from Case Popolare to first tier housing (for definitions of terminology, please see the Terms of Reference). It is necessary to approach real estate agencies and inquire about their knowledge of such activity. As per the memo submitted on February 10th, a survey will be conducted to ascertain the gravity of the subletting situation. The survey will be tailored specifically to the seemingly increasing student population of Piazza Bologna. It appears that this group of residents both contributes to the existence of such illegal activity, and can be negatively affected by it.

Funding and Recommendations. In order for Piazza Bologna to successfully apply the recommendations, the neighborhood must have the appropriate funding. This issue will be kept in mind as the research is completed. After taking into account all the information we have, we will submit the final report with all findings and our recommendations for Piazza Bologna. This will be a comprehensive review of our data and our thoughts on how population density will affect the sustainability of Piazza Bologna.

TECHNICAL APPENDIX II

Transportation Issues: An Assessment of Piazza Bologna's Bus and Railway System



Palazzo Lazzaroni
Via dei Barbieri, 6
Roma, Italia
00186

Phone: 011-39-066-897-070
Fax: 011-39-0668-199-227
Email: cornell@mail.nexus.it
Website: <http://www.roma.cornell.edu>

February 24, 2005

Dear Architect Borghi,

As promised in the Research Design previously submitted, BMML Int'l would like to present the findings of the transportation assessment. Although research is not complete, the study conducted illustrates the negative impacts that may arise from intense population density in relationship to both public and private forms of transport. It also points to several directions Piazza Bologna could head in order to improve upon their situation and make the environment more amiable for residents and non-residents alike.

In the initial observations and spatial analysis of the area, it seemed as though there were an immense amount of cars parked on all the streets of the neighborhood. Furthermore, we noticed an incredible network of buses, trains and automobiles that undoubtedly have environmental, spatial and social influences on the neighborhood. What also became apparent after receiving your letter requesting BMML services is that many of the people who benefit from the transportation in Piazza Bologna are not necessarily residents of Piazza Bologna.

In light of these assumptions and facts, the following study has been conducted. The goal was to ascertain the ability of the transportation system to fulfill the demands of the transportation users. A second goal was to visualize the impact of such transportation activity on the area.

Through scholarly literature reviews in our preliminary research, followed by visual observations, qualitative and quantitative data, and a comprehensive analysis of the data, we have been able to make several recommendations. These recommendations include building an underground parking garage close to the neighborhood to increase the number of parking spaces and remove such chaotic street parking. They also include installing a bike path so that the pollution and congestion may be alleviated. Another recommendation is to improve upon the metro system. A final recommendation is to dissuade private car users from purchasing more automobiles. By increasing the price of parking meters and parking garages, or by taxing the gas more heavily, private car users will be more likely to utilize the efficient and adequate public transportation system.

There exists many steps this study will take in the future. BMML is excited to inform you of new findings as they make themselves apparent.

Sincerely,

Rebecca Bateman
BMML Int'l

Rebecca Liu

Hannah Marcus

Jenna Mitchell

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TECHNICAL APPENDIX III

Who Determines the Face of Piazza Bologna?
Demographic Analysis of Piazza Bologna and Its Surrounding Area

Palazzo Lazzaroni
Via dei Barbieri, 6
Roma, Italia
00186

Phone: 011-39-066-897-070
Fax: 011-39-0668-199-227
Email: cornell@mail.nexus.it
Website: <http://www.rome.cornell.edu>

27 February 2005

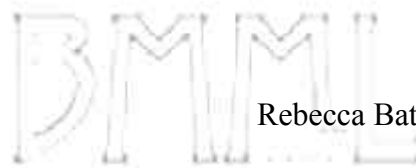
Mr. Borghi:

In determining the current situation of Piazza Bologna, and establishing a firm understanding of the people in the neighborhood, it was essential to conduct a thorough exploration of the existing statistical data. Among the data collected is information on overall population numbers over time, immigration, ethnic composition, construction, gender, civil status and age. This set of census information allowed BMML Int'l to peer deeper into the "face" of Piazza Bologna to see where the problem of population density may arise from. What BMML found was that although population density is still quite formidable in Piazza Bologna, the absolute population has been on the decline for several decades now.

This fact does not change the still ever-present problem of high population density and congestion. It also does not take away from your concerns of the neighborhood's economic and social sustainability. It does point to the possibility that the populations making sustainability a potential challenge in the future are concentrated among the elderly population, singles, university students, and perhaps even the non-Piazza Bologna residents that float in and out of the neighborhood. These groups will be kept in mind in future studies, especially when the participatory process of Piazza Bologna is examined.

The research related to demographic issues ultimately leads BMML towards new paths of research, and help elucidate which populations to more closely focus upon. BMML hopes that this report will paint a clear picture of the Piazza Bologna citizens and their needs.

Best regards,
BMML Int'l Associates



Rebecca Bateman

Rebecca Liu

Hannah Marcus

Jenna Mitchell

ENC: Demographic Analysis



Who Determines the Face of Piazza Bologna?

Demographic Analysis of Piazza Bologna and Its Surrounded Area

Research Associates:
Rebecca Bateman
Rebecca Liu
Hannah Marcus
Jenna Mitchell

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DEMOGRAPHIC ANALYSIS OF PIAZZA BOLOGNA AND ITS SURROUNDING AREAS

When BMML was initially asked to perform consulting services for Architect Borghi and Municipio III, the main concern seemed to revolve around the high population density of Piazza Bologna as well as the related housing and transportation services. The following demographic analyses of Piazza Bologna reveals significant findings that will help BMML make the best recommendations regarding the concern of high density and full capacity. The first finding relates to the overall population. Although it was once believed that population control was necessary for the residents of Piazza Bologna, it appears that population size is on the decline. As seen by the line graph in Figure 1 below, Nomentano, a region which surrounds Piazza Bologna, has experienced a population decline. The columns represent the number of residents in each decade, which logically follow the overall population decline.

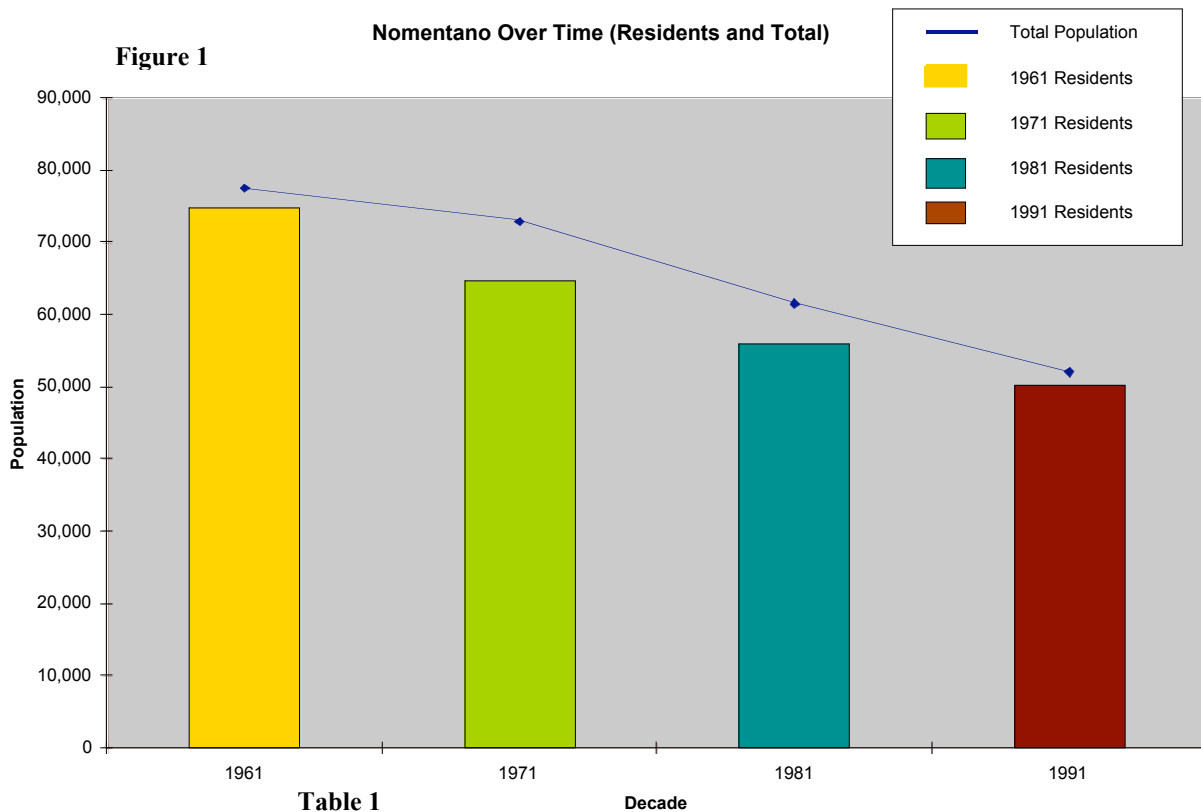


Table 1 **Nomentano Over Time**

year	1961	1971	1981	1991
population	77597	72,986	61581	52,157

Even so, the problem of high density and congestion in the neighborhood is still a prevalent issue. This study will show that the two most prominent age groups—single young adults and the elderly—may have a substantial influence on the fate of Piazza Bologna. Below is a chart comparing the densities of a random sampling of municipalities.

Table 2

Population Density and Land	
Municipio Densities	Density (people/km²)
Central Rome 1	8,550
3	9,609
6	16,390
8	1,798
10	4,690
11	2,941
16	1,993

Piazza Bologna belongs in Municipio III, and as evident by the chart, the density is one of the highest in the region. After examining the municipio densities, one can conclude that the closer a municipio is located to central Rome, the greater the density. Aside from Municipio VI, which is adjacent to central Rome, Municipio III has an astoundingly high density. This has social, political and economic implications for Piazza Bologna. The high density contributes to congestion, overcrowding, and other possible negative problems.

This study will explain the demographic realities of Piazza Bologna, as well as the possible implications such realities may have on the neighborhood. And as requested by the client, included in this report is a list of future steps BMML will take to better understand Piazza Bologna and reach recommendations that aid the region’s sustainability.

Methodology and Limitations

The majority of the data collected for the demographics analysis of Piazza Bologna is from the Istituto Nazionale di Statistica, or, ISTAT.⁴⁵ This statistical source is by far one of the most reputable and reliable in Italy. Even so, limitations must be kept in mind while reviewing the following statistical analyses for Piazza Bologna. The first limitation is that the most current

⁴⁵ For reference: <http://www.istat.it/>

data available for the city of Rome and its surrounding neighborhoods is the 1991 Census data—nearly 15 years out of date. Data for the 2001 have been collected, but have yet to be fully processed. Furthermore, the census data collected is on average approximately 10 percent inaccurate.⁴⁶

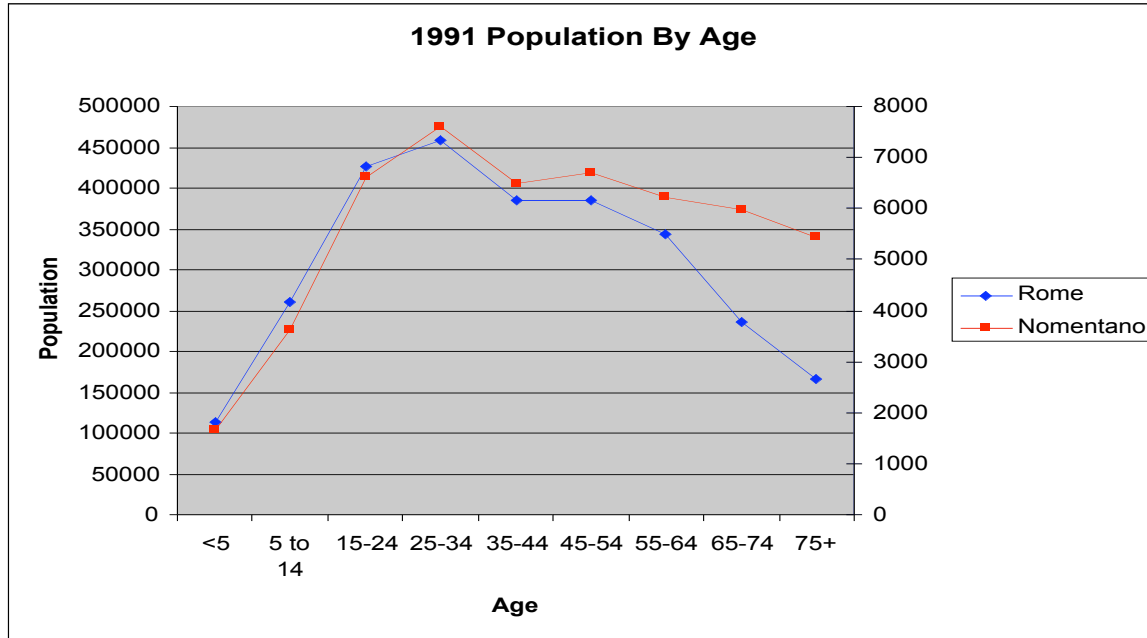
There are also some unavoidable inconsistencies in terms of Piazza Bologna's specific data. For comparison purposes, several different regions are used to understand the demographic realities of Piazza Bologna. Municipio III is by far the largest area used in this study. It includes the neighborhoods of Piazza Bologna and San Lorenzo. Nomentano, a section within Municipio III, also includes Piazza Bologna but excludes San Lorenzo. Finally, Piazza Bologna is comprised of series of census tracts. (The exact sections included are listed in an attached appendix.) Other challenges include the limited availability of necessary information: ISTAT did not have statistics on income levels, religion or political affiliation. The office was also unable to provide uniform data for years before 1991 and 1981. For this reason, much of the demographics analyses are limited to one decade.

The Current Population State

Using the existing data, certain facts can be learned about the current situation of Piazza Bologna. Today, Piazza Bologna has approximately 56,272 people. According to the most recent data of Piazza Bologna from 2003, there are 5,198 more women (30,735) than men (25,537). And in general, the population breakdown of Nomentano follows that of greater Rome. The major difference appears in the older population. Both Rome and Nomentano have a very high young adult population (25-34 years of age), but Nomentano's seems to be exceedingly high. The figure below offers a representation of the general shape of population breakdown by age. Note, however, that Rome's population is demarcated by the y-axis on the left-hand side, whereas Nomentano's population follows the y-axis on the right-hand side.

⁴⁶ Professor Gregory Smith. February 24, 2005.

Figure 2



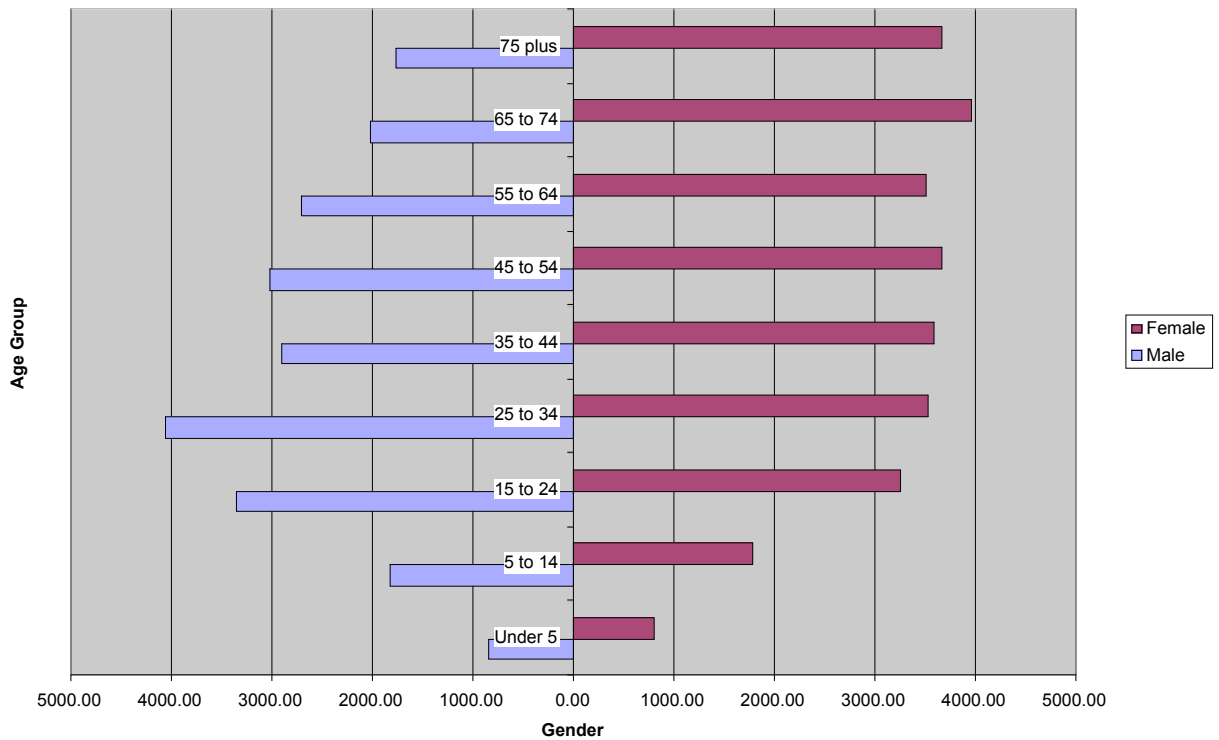
Data from 1981 on population categorized by gender reveals that there are more elderly women living in Piazza Bologna than elderly men. This fact most likely reflects the greater life expectancy of women compared to that of men. And while women seem to outlive men in Piazza Bologna as elsewhere, there appear to be more 25-34 year old men than women in Piazza Bologna. Below is a graph that illustrates these findings.

Chart 3

1991 Nomentano Age by Gender		
Age	Male	Female
Under 5	837	809
5 to 14	1833	1788
15 to 24	3359	3259
25 to 34	4066	3528
35 to 44	2908	3592
45 to 54	3030	3672
55 to 64	2707	3508
65 to 74	2015	3952
75 plus	1765	3657
Total	22520	27765

Figure 3

1991 Population by Age

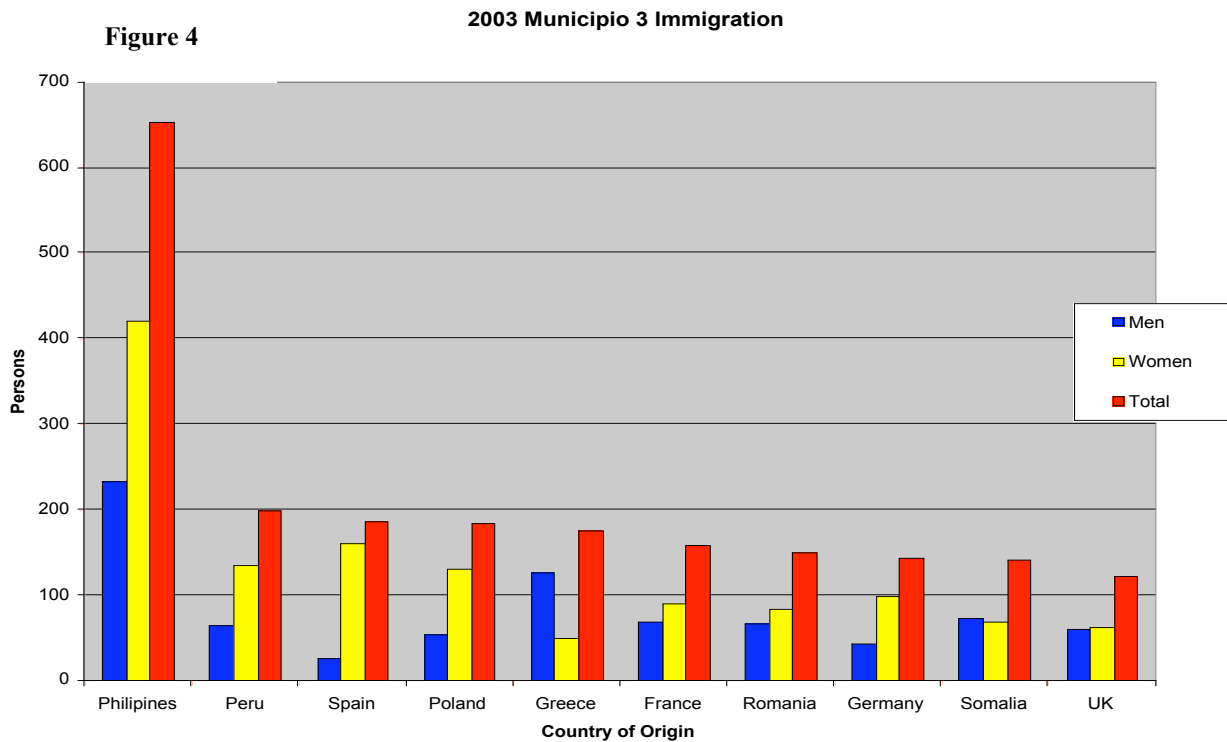


It is evident from the pyramid chart that an overwhelming number of Nomentano inhabitants are women. BMML suspects that a greater female population is due to the female nurses and aids for the elderly, and because women have a longer life expectancy (therefore within in the elderly age group there are more women). It is also evident that there is a greater older population than the younger population. This same pattern of age distribution also occurred in 1981. This age distribution will have social, political and economic byproducts.

Immigration. Another essential aspect of the Piazza Bologna population is its immigrant population. Although data is scarce on the topic, the ethnic breakdown of Municipio III for 2003 is available.

Chart 4

Municipio 3 Immigration 2003			
	Men	Women	Total
Philippines	234	420	654
Peru	64	135	199
Spain	27	160	187
Poland	54	131	185
Greece	126	50	176
France	69	90	159
Romania	67	83	150
Germany	44	99	143
Somalia	73	69	142
UK	60	62	122
Total	818	1299	2117



The available data shows that the number of registered immigrants makes up 2,117 of the residents in Municipio 3, and many presumably reside, in Piazza Bologna. Since the total population of Municipio III in 2003 was 56,272, the immigrant population makes up approximately 4% of the entire population.⁴⁷ This data is confirmed by the visual observations made by BMML during previous analyses of the area; there were many Southeast Asian and

⁴⁷ Mosaico Statistico: Dati Municipali. November 2004. Comune di Roma: Assessorate alle Politiche Economiche.

African people selling merchandise or strolling along the streets. While men and women both seem to move to Italy, the majority of immigrants from any country seem to be women. This may have tremendous implications for the economic situation for Piazza Bologna. A recent global trend has occurred in relation to immigration.⁴⁸ More and more women are relocating to foreign countries in order to provide money for their families in their native lands. While the need for entry-level employment may be fulfilled by these immigrant women, their earnings are not being funneled back into the Piazza Bologna economic cycle. Rather, the funds are being used by the immigrant family members abroad, thus leaving Piazza Bologna. This fact has consequences for the commercial activity and sustainability of the neighborhood.⁴⁹

According to the Statistical Office of the City of Rome, the foreign citizens registered in the *anagrafe* (population register) of the city of Rome for 2003 total to more than 200,000. This fact translates to an incidence of 72 foreign citizens per thousand inhabitants. Of the foreign citizens living at December 31st in the city of Rome about 173,000 (equal to 86% of the total) come from countries outside of the European Union.⁵⁰ Although helpful in understanding the current immigration status of Piazza Bologna and Municipio 3, one must recognize that many foreigners are not registered and foreign citizens frequently are changing their residence and leaving Rome without any communication to the municipal offices. This leads one to believe that the estimate for immigrants is too low and too difficult to accurately track.⁵¹

Although 2,117 immigrants in Piazza Bologna are registered with the city, this number cannot be completely accurate. Many immigrants are illegal and thus are not counted in the census. Legal immigrants could also be harboring illegal immigrants in their apartments and would not indicate this on the census. The true number of immigrants living in the neighborhood therefore cannot be truly known and their effect on the economy and housing of Piazza Bologna may go unnoticed by census data. Further inquiries into local resources such as housing agencies and conducting foot surveys will help illuminate this issue.

⁴⁸ Barbara Ehrenreich and Arlie Russell Hochschild. *Global Woman: Nannies, Maids and Sex Workers In the New Economy*. Metropolitan Books: 2003.

⁴⁹ Ibid.

⁵⁰ D'Elia, Enrico, R. Rosait. "Foreign Citizens in Rome." Statistical Office of the City of Rome. www.irpps.cnr.it/ricmob/web_conf/download/Foreign_citizens_in_Rome_2003.pdf Accessed: February 27, 2005.

⁵¹ Ibid.

Population Growth: Age Groups, Strain and Resource

The decrease in population in Piazza Bologna from 1961 to 1991 may be counterintuitive, but it conforms to the trend observed throughout Rome and its greater metropolitan area during this time period. Beginning in the 1960s, and continuing up until recent years, the population rate and total population has been decreasing at a steady rate. Fertility and economic development play significant roles in this phenomenon.

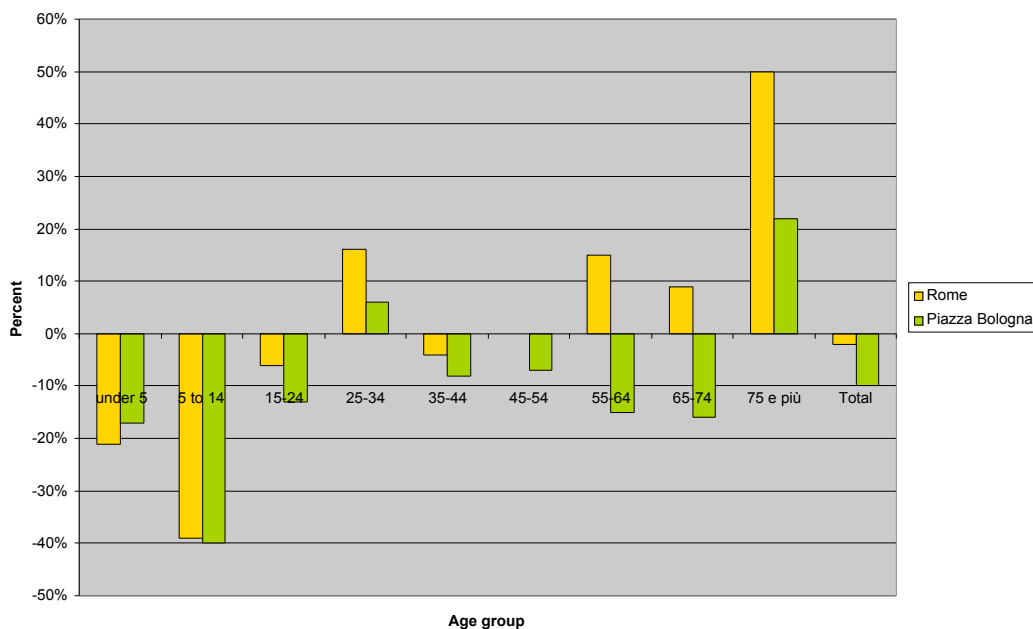
Gender Roles. Since the 1970s, the feminist movement has had a major impact on the birth rate. More women are graduating from college and entering the labor force, but the responsibility of having a child still falls on the female. As a result, women are having fewer children later in life. Italy actually has one of the lowest fertility rates of all developed countries: 1.2 children per woman.⁵² The affluence of the country as well as of individual families also has an impact on population growth. On a macro-level, Italy can spend more money on providing birth control and greater accessibility to contraceptive devices and health care. On a micro level, the increase in income per family may result in a family having to decide whether to spend money on a third child or a third car. Many chose the additional car, home, or vacation rather than the additional child.

Economic development, however, is also followed by increase in stress-related jobs and the uncertainty tied to economic transition. The smaller population of males (compared to females) is attributed to a higher male mortality rate. The incidence of cardiovascular disease (for the older males), and the increase of substance abuse, suicide, and homicide (for younger males) explains this trend. The decreasing birth rate combined with the increasing mortality rate explains Italy's total population decrease since the 1970's. Piazza Bologna demonstrates these trends observed in Rome, which can be seen in the graph on page 1. The figure demonstrates the significant and steady decrease of both total population and residents of Piazza Bologna from 1961 to 1991.

A closer look at the population decrease, however, reveals an interesting phenomenon. While the total population does decrease over time, the absolute change of certain age groups actually rises. Figure 6 below shows the percent changes of the population by age groups for both Rome and Piazza Bologna.

⁵² Testa, Maria Rita. *Fewer and Older Italians, More Problems? Looking for Solutions to the Demographic Question*. Department of Economic and Social Affairs, United Nations Secretariat. October 16 2000.

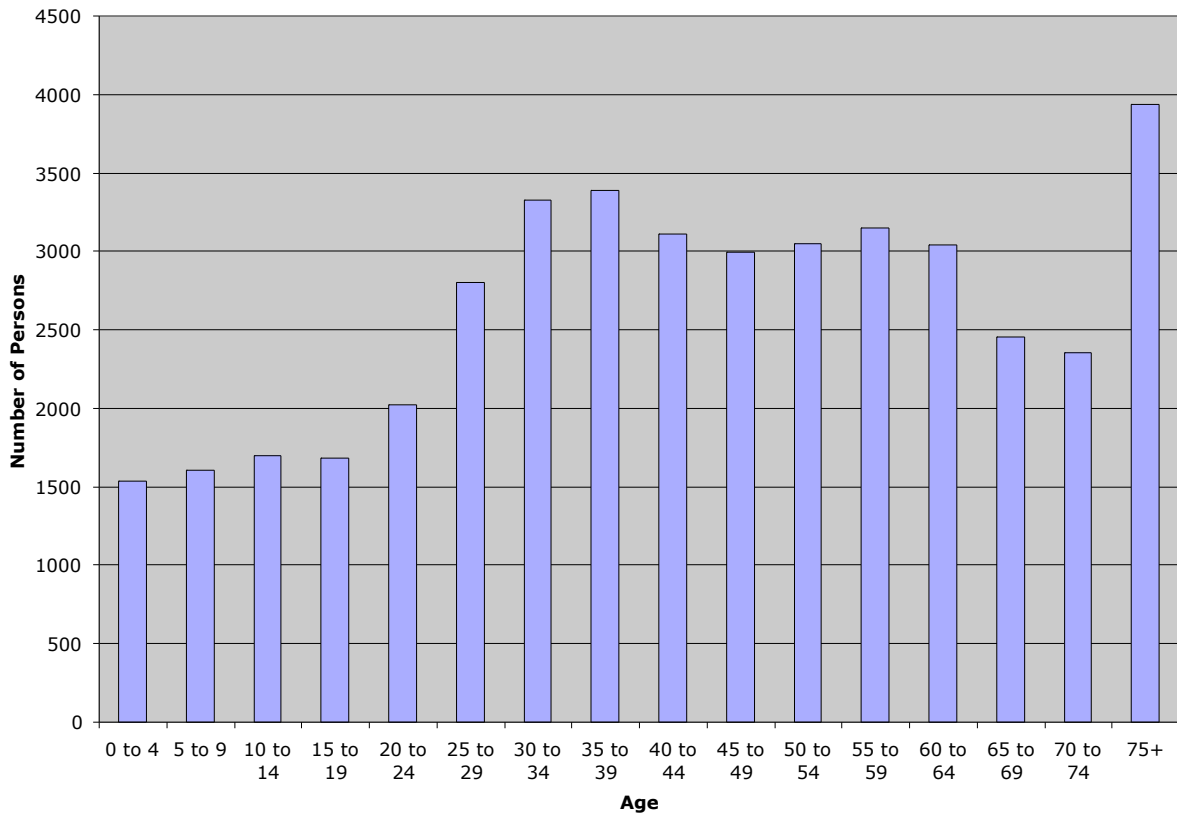
Figure 6 Percent Change from 1981 to 1991 from Rome and Piazza Bologna by Age



The Elderly and young adults. The most significant rise occurs in the vecchio, or elderly population. With expanded pension funds, and more accessible, improved health care, older people are living longer. Since the 1990s, Italy has one of the highest life expectancies (75 years for men, 81.2 years for women⁵³). In Piazza Bologna, the 75 and older age group represents the greatest increasing population, as exemplified in Figure 6. Also, the 75 and older age group represents the greatest majority in the Piazza Bologna population, as seen with Figure 7. On the whole, the large presence of the aging population has important political, economic, and social consequences on Piazza Bologna that need to be examined.

⁵³ Testa, Maria Rita. *Fewer and Older Italians, More Problems? Looking for Solutions to the Demographic Question*. Department of Economic and Social Affairs, United Nations Secretariat. October 16 2000.

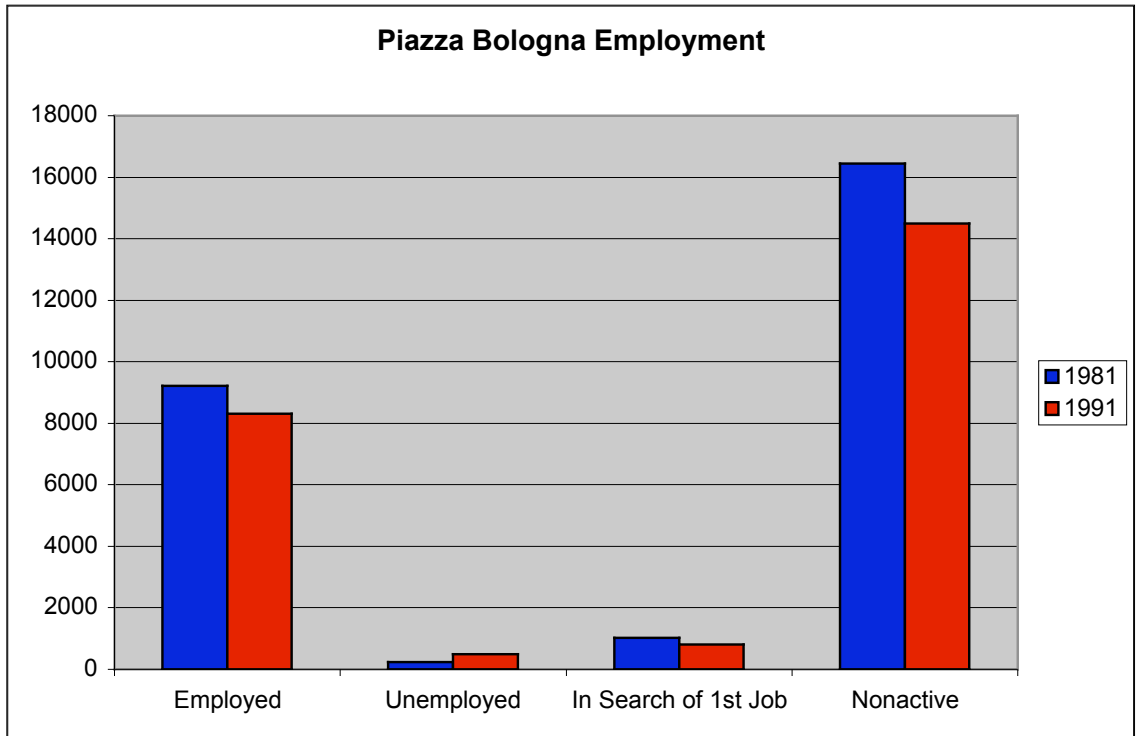
Figure 7 2003 Piazza Bologna Total Population by Age



Political consequences relate to the impact the large elderly population has on the participatory planning process. The client has informed BMML that Piazza Bologna's planning is achieved through representatives of the community proposing their opinions and ideas. Since Piazza Bologna is composed of a large elderly population, their representation should be proportional.

Economically, the elderly population could act as a strain or a resource to Piazza Bologna, depending on how the age group is utilized. The elderly population's negative influence may at first appear to be because they make up a generous portion of the non-active population. But according to Figure 8 below, the activity rate of civil servants is decreasing, as noted by the increase in the non-active sector over time.

Figure 8



This decrease in non-active residents over the years is due to the growing aging population, which can retire as a result of increasing income per capita and the expansion of public old-age funds. While a less active community may at first glance appear to be a problem due to the drain it puts on public spending, it provides a positive opportunity for Piazza Bologna as well; fewer active elderly results in more room for immigrants and younger workers to occupy those jobs. This trend can already be seen through the similar rise in the 15-24 and 25-34 age groups in Piazza Bologna from 1981 to 1991 in Figure 6.

Along with the 75+ age group, the teenage and young adults were the only two other age groups to rise in representation for Piazza Bologna. It can be assumed that the presence of these age groups go hand-in-hand, as shown through the parallel rise in these age sectors. In addition to the immigrants and younger people occupying the services and businesses in Piazza Bologna, BMML believes that in Piazza Bologna, the rise of 25-34 year olds occurs simultaneously to the increase in 75+ due to the elderly population's needs for live-in nurses and aids. In most cases, these assistants are most likely to be women, thus explaining Piazza's Bologna's disproportionate and increasing female to male ratio.

Another economic benefit the elderly population could provide to Piazza Bologna is the large tax base. As demonstrated through the regionally divided graphs located in Appendix C,

the largest elderly population resides in the North West region of Piazza Bologna, which is also the wealthiest region. Assuming that the elderly do not travel far for their basic everyday needs, the last and possibly greatest asset the elderly sector provides for Piazza Bologna is their spending pattern. Unlike the mobile, younger population, the elderly most likely go to the local bars, markets, clothing stores, and service-oriented businesses for all their needs, every day. They are a significant link in the circle of revenue that brings money back into Bologna. While the city may have to focus to ensure that Piazza Bologna is fully handicapped-accessible and suitable for its elderly population, it receives return in the form of their spending activities.

Socially, the elderly population could also be seen in a positive as well as a negative light. When it comes to electing local officials and the participatory planning process, it is very likely that the voice of the elderly will sound different from that of the younger and minority populations. Because they are well-represented, however, it may be this voice that rises above the rest. This could result in strained social tensions.

On the other hand, a positive social consequence would result from the simple presence of the elderly in parks and on the street. During BMML’s initial observations, it was recorded that the majority of people walking on the sidewalks and sitting in the parks were old people. Their presence provides Piazza Bologna with a sense of security, their watchful eyes making it safe for children to play, and making it difficult for youth to vandalize.

Employment

Piazza Bologna is dominated by the presence of a non-active population. The census defines non-active status as: housewives, students, retirees, or other (the term “other,” is not defined by the census). In both 1981 and 1991, 60% of Piazza Bologna’s population stated that they were non-active, which is indicative of either a large student population or a large elderly retired population. As shown in earlier sections, there is a large percentage of elderly citizens living in the neighborhood. Charts 5 and 6 as well as Figure 9 show the numerical and pictorial representations of the data.

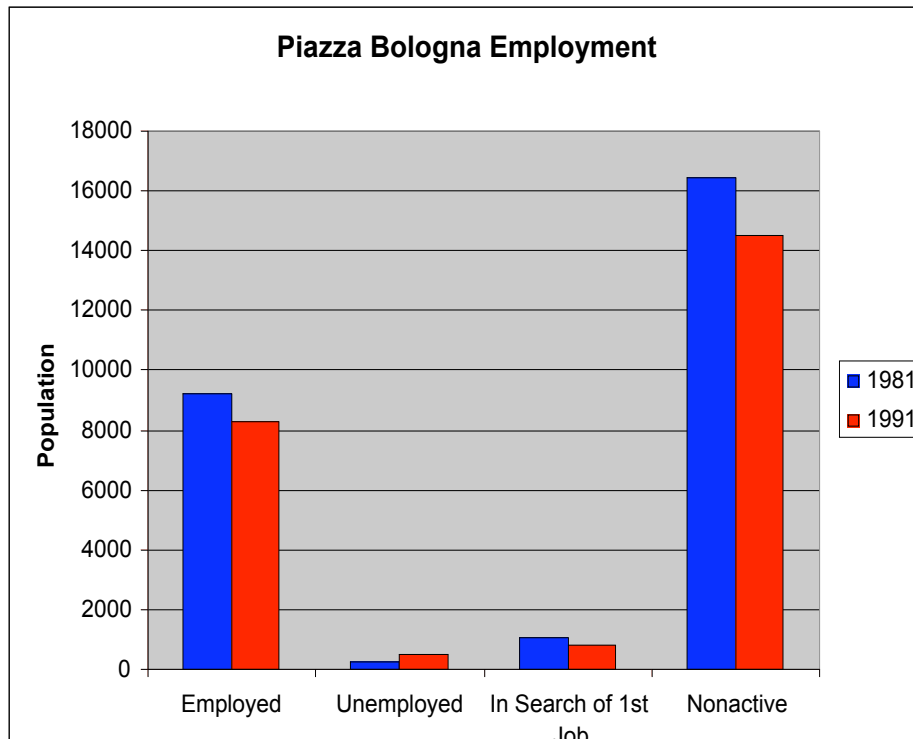
Chart 5

Piazza Bologna Employment Rates					
Year	Employed	Unemployed	In Search of 1st Job	Non-active	Total
1981	9,223	243	1,031	16,454	26,951
1991	8,309	485	813	14,502	24,109

Chart 6

Piazza Bologna Employment Percentage Rates					
	Employed	Unemployed	In Search of 1st Job	Non-active	Total
Percent of Total 1981	34.22	0.9	3.82	61.05	100
Percent of Total 1991	34.46	2.01	3.37	60.15	100

Figure 9



The apparent decrease in all categories except unemployment can be explained by the decrease in the overall population of Piazza Bologna from 1981 to 1991.

The large non-active portion of the population has implications for the economy of Piazza Bologna, as it means that the employees of the neighborhood do not necessarily live in the area. Also, it is unclear what percent of active residents actually work in the neighborhood. Therefore the money earned in the neighborhood may not be put back into Piazza Bologna's economy, thus calling into question the area's apparent sustainability, as mentioned earlier. The non-active population, however, contributes to the economy by shopping and living in the region, thus putting money into the business cycle, and not taking money away from it. This population does not provide any services for the area and thus, Piazza Bologna must be served by outside residents. This raises the question of the non-active population's influence on the economy of Piazza Bologna. This issue will be explored further in subsequent studies, namely during BMML's Economic Issues study.

Civil Status

Piazza Bologna shows an almost equal presence of single residents to married residents. This can also be seen in the number of single family dwellings in the neighborhood. The large number of single residents could indicate that the average citizen cannot afford to marry due to increasing costs of living, and is waiting until later in life before seeking a spouse.⁵⁴ Italy has a low divorce rate and Piazza Bologna is in accordance with the national trend. Charts 7 and 8 indicate the absolute numbers and the percentages of each category of civil status: single, married, legally separated, divorced, and widow/er.

Table 7

Piazza Bologna Civil Status						
Year	Single	Married	Legally Separated	Divorced	Widow/er	Total
1981	11311	12325	455	220	2637	26948
1991	10313	10451	386	393	2663	24206

Table 8

Piazza Bologna Civil Status Percents						
Year	Single	Married	Legally Separated	Divorced	Widow/er	Total
Percent of Total 1981	41.97	45.73	1.68	0.81	9.78	100
Percent of Total 1991	42.60	43.17	1.59	1.62	11	100

For a graph of this data, please see Appendix B.

In both 1981 and 1991, the number of widows is vastly greater than that of widowers. This follows previously explored data which states that there are more elderly females living in the neighborhood than elderly men; it also agrees with biological fact which states that women tend to live longer than men. For all other categories, both men and women appear to have similar statistics. The following charts and graphs show the numerical and graphical data for each individual year by sex. This is important for comparing each category by sex, especially for widow status. For absolute values of the data, please see Appendix B.

⁵⁴ Worldwide Cost of Living Survey. [<http://wcol.eiu.com>]

Figure 10

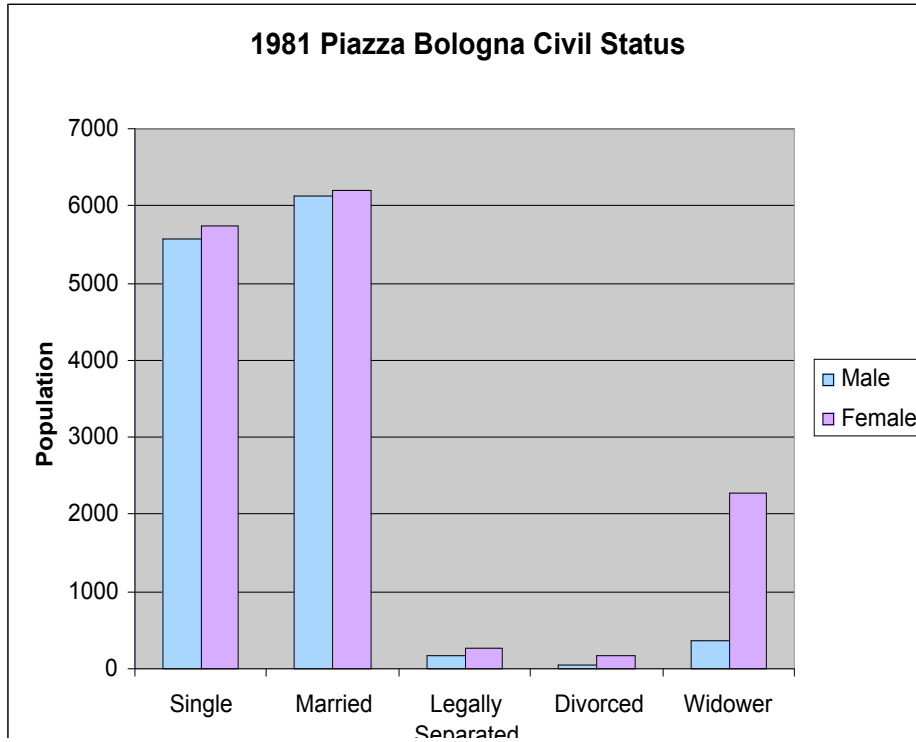
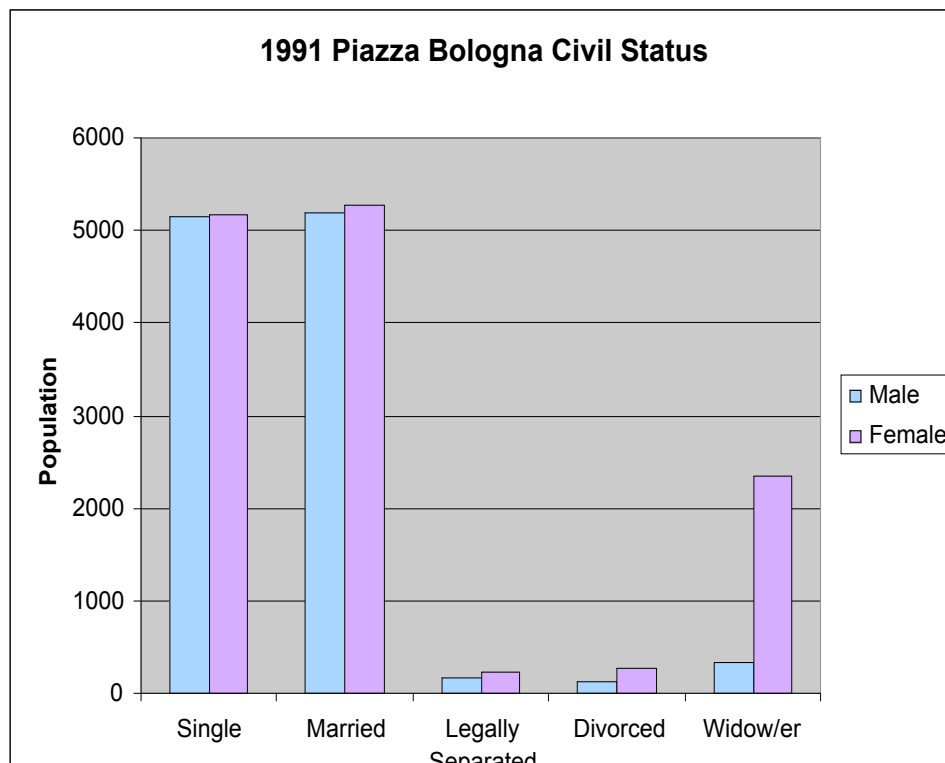


Table 9

	Single	Married	Legally Separated	Divorced	Widow/er	Total
Male	45.33	49.82	1.47	0.43	2.93	100
Female	39.15	42.31	1.86	1.138	15.52	100
Total	41.97	45.73	1.68	0.81	9.78	100

	Single	Married	Legally Separated	Divorced	Widow/er	Total
Male	47.02	47.37	1.47	1.17	2.95	100
Female	38.95	39.71	1.69	1.99	17.64	100
Total	42.60	43.17	1.59	1.623	11	100

Figure 11



The number of single and widowed residents can have an impact on the future population density of Piazza Bologna. Currently, it is very high as compared to the rest of Rome. In a very dense area, single occupancy apartments are an inefficient use of space. If elderly citizens or single citizens continue to live in apartments alone, the demand for more building space to accommodate all the singles will exceed the supply. This can also have an effect on the amount of residents who put money into the neighborhood. If there are not enough residents to fill the jobs in the area, employees will have to come from elsewhere thus taking money away from Piazza Bologna. This issue will be examined further in future studies.

By analyzing the breakdown of the number and types of family members that reside in Piazza Bologna, the most apparent trend was seen in the Northeastern area of the neighborhood. The Northeastern section of Piazza Bologna is the most populated region by census tract and also has the most single families inhabiting this region, as shown in Figure 12 below. Please also refer to the map included to fully understand how the area is demarcated.

Map of Piazza Bologna Regions

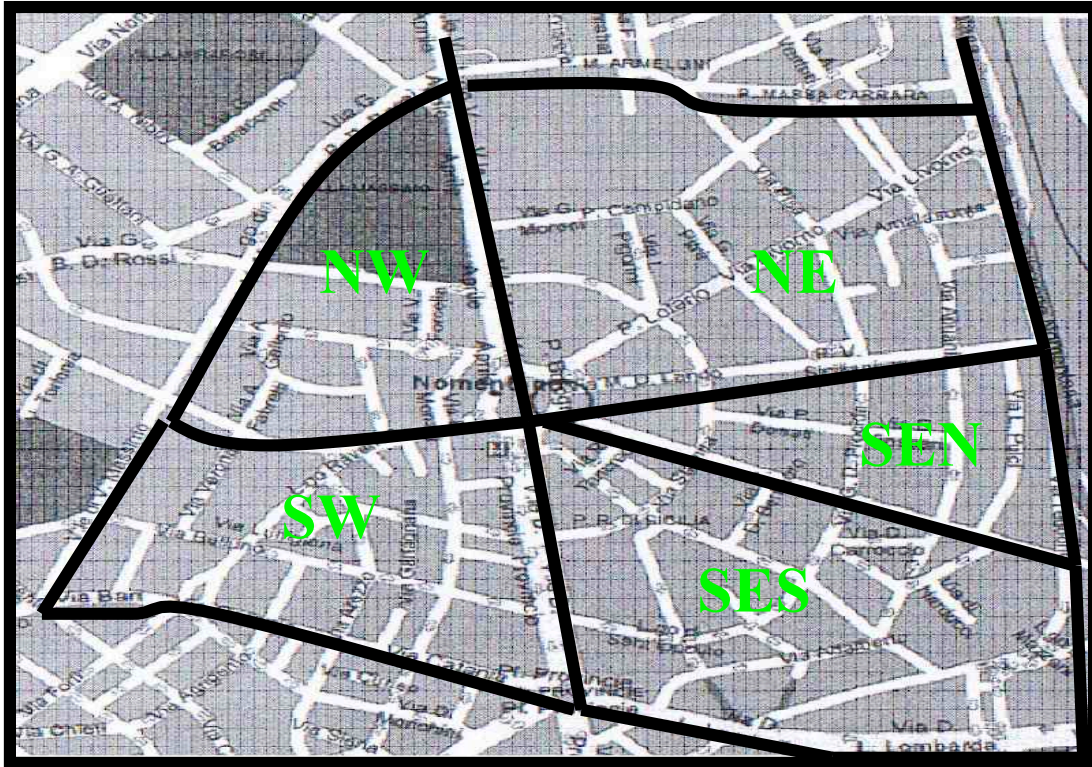
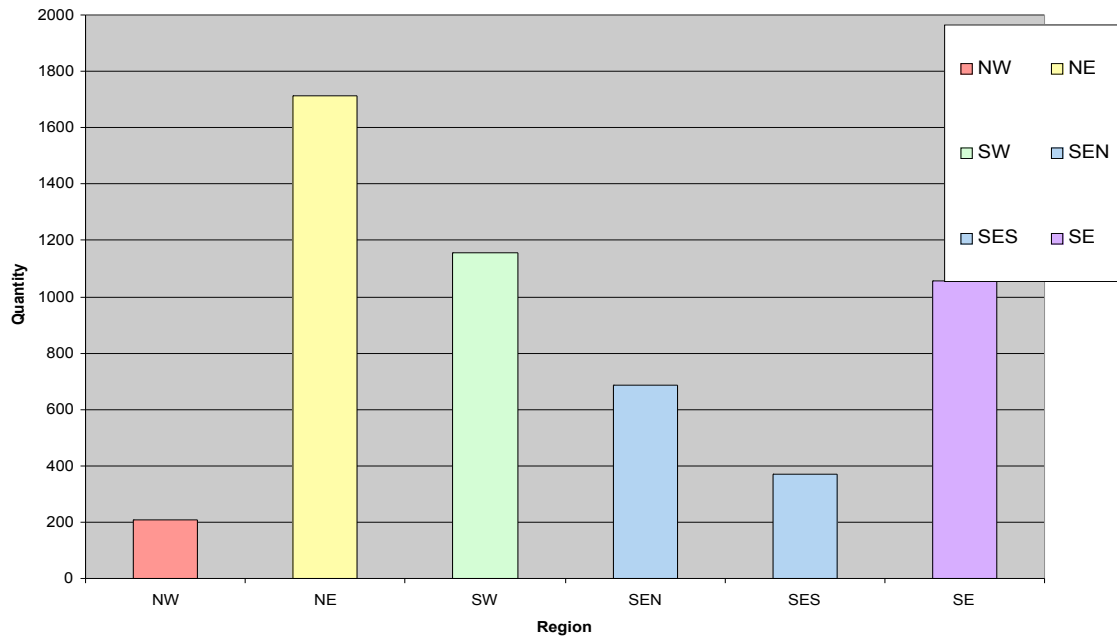


Figure 12

One Person Families: All Regions

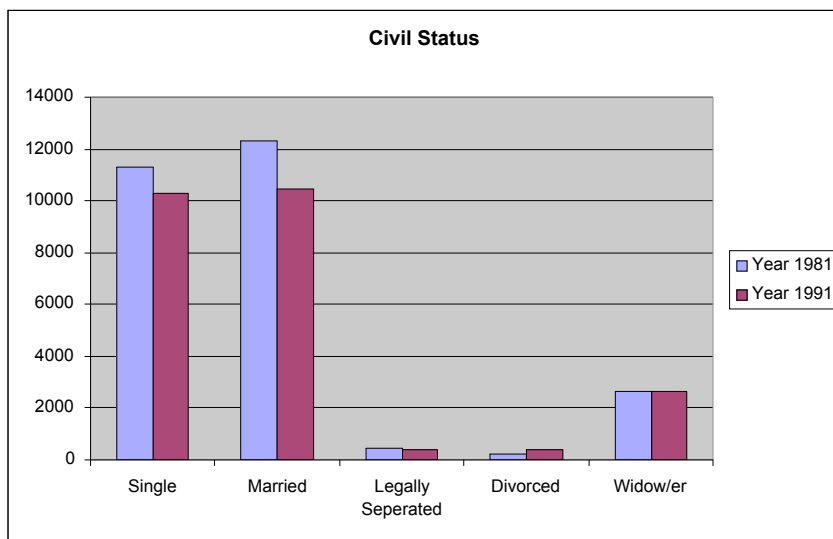


Upon further investigation, economic data will prove that housing in the Northeastern region is too costly for families with children to reside in, but a viable option for single, young adults (25 to 34 year olds) as well as the elderly (ages 75 and older). A review of Appendix C below of Population by Ages for Regions shows that the dwelling habits of young adults as well as the elderly residents appear to support the idea that a majority of one person families are predominantly composed by these two age groups.

Looking at the graphs in Appendix C it also appears that from 1981 to 1991, the number of people under 5 to 24 years of age has steadily declined. This indicates that Piazza Bologna residents appear to be having fewer children and are instead leaving Piazza Bologna to start a family. A possible explanation for the exodus out of Piazza Bologna is because price for housing is too high to adequately support a family.

There is often an economic relationship between the number of married couples with children and the number of married couples without children; if cost of living is very high, many married couples will defer from having children until later in life. This trend may explain the high number of young adults residing in Piazza Bologna. Support of this current trend can be seen in the evidence provided by the civil status data of Piazza Bologna residents from 1981 to 1991. These graphs indicate that there is still a large single and married population residing in Piazza Bologna. This accounts for the high number of single and two to three member families indicated in the graphs of family sizes by regions.

Figure 13



By identifying the region where the largest number of single families exist, BMML can target that area for further investigation. Graphs comparing each region can be found in Appendix D. It is especially important to understand which particular regions of Piazza Bologna have the highest concentration of single families for sustainability reasons. A high number of young adults become an alarming issue because unlike family members, their residence in Piazza Bologna will most likely be temporary and their vested interest in the area is minimal. Elderly also have limited interest in the overall maintenance of the area because of the length at which they will be living in the neighborhood. Families with children have a larger stake in the quality of life in Piazza Bologna and their presence reinforces the importance of maintaining good schools, safe streets, as well as other social services. It is therefore important for Piazza Bologna to remain a desirable neighborhood with available and affordable housing and accommodations for families with children to promote sustainability.

The presence of a large single population is concomitant of sustainability issues when a pre-existing problem of development has been established. If there is a limited supply of available housing stock and a majority of single families occupy them, then families with two or more people are unable to locate in the area. In addition, single family occupancies are most likely responsible for illegal subletting. As Architect Borghi mentioned, elderly people illegally hire live-in immigrant women for daily assistance and genial company as well as rent their several story homes to students providing them moderate income. The degree with which illegal subletting of single occupancy homes occurs and its negative impacts on the sustainability of Piazza Bologna will be revealed after further investigation.

Although not as dramatic, the other three regions (also show less prominent trends. According to the family size demographic data, the general trend for all regions is to have a fairly large number of single and two to three member family residents.

Furthermore, the level of construction decreasing overtime as seen in the figure below (from 377 projects during 1961 to 1971 and then dramatically down to 28 projects during 1972 to 1981 and again decreasing to 23 projects during 1981 to 1991). As our client mentioned in his original letter, Piazza Bologna is unable to experience further development within its borders, BMML has recognized that further increases in the population of elderly and 25 to 34 year olds in the Northeast region will lead to sustainable housing issues. However, future discussion with real estate agencies regarding the breakdown of the housing stock should also bring to light what

age groups and in what areas are contributing to the growing concern of housing sustainability in Piazza Bologna.

Chart 10

Piazza Bologna: Periods of Building Development							
	Before 1919	1919 - 1945	1946 - 1960	1961 - 1971	1972 - 1981	1981 - 1991	Total
Total Num. of Projects	30	8007	3945	377	28	23	12410

Property of Succession

As the increasing number of elderly residents passes on, assuming through the current data that they own a considerable amount of the housing stock in Piazza Bologna, the issue of Property of Succession will come to light. Sources in the area explain that many of these elderly folk will leave their property to their children to be divided amongst themselves; there is a common problem with the division of inherited property. Furthermore, according to the Italian Constitution, if no will exists, then the property is divided amongst the surviving children. It is not uncommon for these children to have disagreements about who has the right to inhabit the property subsequently leading to an empty home with no residents. To what degree this problem afflicts Piazza Bologna’s elderly residents will also further be brought to light upon meeting with real estate agencies.

Final Conclusions for Piazza Bologna Demographic Analysis

Our demographic analysis reveals several trends which will inform our future recommendations. The first important pattern was that of a decreasing absolute population but an existing high density problem. This fact will have consequences for the economic livelihood of Piazza Bologna, as well as the housing situation in the neighborhood. A second significant observation is that two age groups dominate the residential character of the neighborhood: 25 to 34 year olds, and 75 years and older. Future steps will explore whether or not these two age groups are related to one another. Since the elderly population is non-active in the workforce, it relies on the 25 to 34 year old age group to provide labor, which explains their parallel prevalence. Also, it is highly probable that the younger groups make up the live-in care services

needed by the older group; therefore the relationship between these two age groups is definitely symbiotic.

These relationships could have social and economic influences on Piazza Bologna. Perhaps the greatest consequence these two groups may have on the neighborhood relates to sustainability in the following three ways. First, single occupancies are often widow/ers or young professionals. Although they may contribute to the economic cycle, in terms of actual buildings, they contribute to the density problem. Secondly, a single person living alone in an apartment is likely to illegally sublet unoccupied rooms. Thirdly, the negative impact of these age groups point to the positive influence families may have on Piazza Bologna, and why the lack of families has a negative impact on the neighborhood. Young families have the greatest stake in maintaining and improving their neighborhood. By participating in community events, attending public schools, and using public space, this demographic will have a heightened desire to contribute to their neighborhood.

Finally, a third finding from this study is the presence of immigrants and a slight female majority. These two findings may also be linked, as the greater proportion of immigrants is in fact female. BMML will take steps to explore the impact of immigration on the business cycle, including formal surveys and other research.

TECHNICAL APPENDIX IV

Economic Analysis of Piazza Bologna: A Sustainable Neighborhood



Economic Development Plan: Piazza Bologna
Sustainability, Security, and Satisfaction

Research Associates:
Rebecca Bateman
Rebecca Liu
Hannah Marcus
Jenna Mitchell
7 March, 2005

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ECONOMIC ANALYSIS OF PIAZZA BOLOGNA: A SUSTAINABLE NEIGHBORHOOD

A strong, diverse and sustainable economy is critical to the success of a neighborhood. Piazza Bologna's thriving commercial center is only part of an indicator of a healthy economy. Analysis of demographic data regarding the level of education of the constituents, the breakdown of the employment, the state of the housing market, and the impact of the highway Tangenziale contribute to the character of Piazza Bologna's economic activity. Further investigation into issues such as the misperception of solely negative affects of the highway neighboring Stazione Tiburtina and the economic effects of illegal subletting were conducted for this report.

Mobility and Security for Piazza Bologna through Density. The government of Rome in recent years has developed a new urban plan to address two major problems that afflict the city: mobility and security. BMML has addressed mobility issues specific to Piazza Bologna in the previously submitted report on transportation. Security, however, is another issue that becomes relevant when discussing the economy of the neighborhood. As the officials indicated, a safe city does not necessarily mean highly car or foot-patrolled streets. Rather, a secure neighborhood is often the result of a constant flow of people during all times of the day.⁵⁵ Renowned sociologist Jane Jacobs, stated that the safety of a neighborhood could often be attributed to the presence or absence of "eyes on the streets."⁵⁶ As her book highlights, resident's preoccupation with the activities that occur along the streets of their neighborhood provide an informal form of watchful concern and security. Economic activity that services different populations at all times of the day allows for the wary "eyes" to constantly guard the streets. Unlike the EUR, whose streets become barren after working hours have past, Piazza Bologna appears to have a consistently genial atmosphere of people milling about the streets at all times of the day. The high level of people ebbing in and out of the streets and along the sidewalks of Piazza Bologna is the result of a diverse supply of establishments. This high activity level

⁵⁵ Notes on History Of Piazza Bologna (EUR Central Business and Administrative Office: March 3, 2005)

⁵⁶ *The Death and Life of Great American Cities*

permits and encourages high commercial activity, which contributes to the economic stability of Piazza Bologna.

Piazza Bologna's development began during 1909, only one of two times zoning laws were approved by the Council. Five areas in Rome, including Piazza Bologna, were identified as neighborhoods for expansion in similar fashion: a central square with radial roads. After the establishment of a large pharmacy and the fascist styled post office found in the central piazza, further expansion of Bologna's radial center took place after World War II.

Density reached its peak in Piazza Bologna during the 1950s when building speculation was rising. Government officials predicted that the population of Rome would increase to 5 million inhabitants when in actuality, the population leveled out to only 3 million people. The significant discrepancy is largely responsible for the high density of surrounding neighborhoods such as Piazza Bologna. Concomitant of this development was the influx of many of the residents that inhabit the homes of Piazza Bologna today. Classified as a historic city, this neighborhood has been declared an invariance zone where further development is forbidden further complicating attempts to alleviate overcrowded homes.

In the process of discovering problematic symptoms within the existing state of Piazza Bologna, BMML has found that many of the economic sectors that will be discussed in the following report currently demonstrate sustainable activity. BMML has therefore provided recommendations on how to extend the longevity of and improve upon the seemingly stable economic conditions of Piazza Bologna.

It is important to understand how Piazza Bologna's economic sectors function in order to help keep the area sustainable while also being sensitive to the comfort, financial security and needs of the Piazza Bologna's citizens. A closer examination of the housing market, division of employment, educational levels of the constituents, and transportation situation has shed more light on the infrastructure and character of Piazza Bologna. The following are findings and subsequent recommendations for economic issues of Piazza Bologna that were obtained after a review of statistics from ISTAT, comprehensive first-hand accounts from Piazza Bologna residents, a meeting with government officials at the EUR, as well as inquiries with neighborhood real estate agencies.

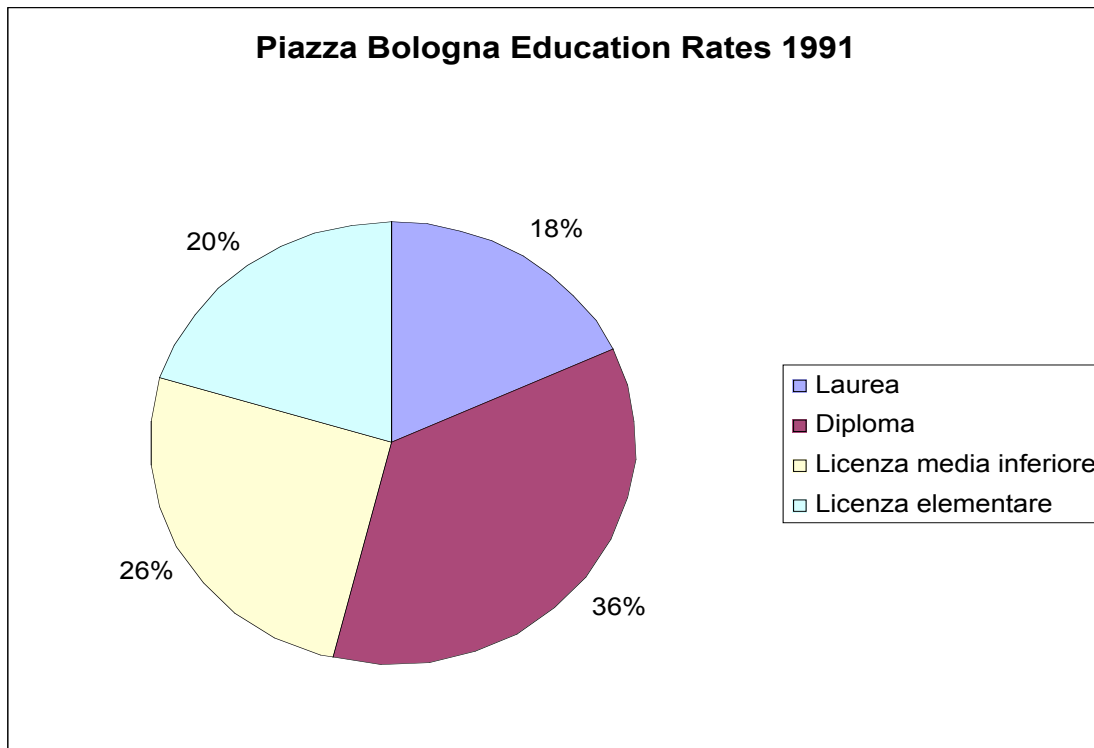
Current State of Education. Education is an investment into future employment and economic viability. For Piazza Bologna, it indicates what sort of emphasis is placed on providing

for the economy. The most recent data available for Piazza Bologna from the ISTAT statistics office is from 1991, nearly 15 years ago. Although outdated, the statistics present a depiction of the overall education experience of Piazza Bologna.

TABLE 1⁵⁷

Piazza Bologna Education Rates 1991		
	Number of Residents	Percent
Laurea (Undergraduate degree)	3897	16.83
High School Diploma	7763	33.52
Licenza Media Inferiore (Junior High School Diploma)	5655	24.42
Licenze Elementare (Elementary School Diploma)	4373	18.88
Literate without a Degree	1343	5.8
65+	336	1.45
Illiterate	123	0.53
65+	47	0.2
Total	23154	100

GRAPH 1⁵⁸

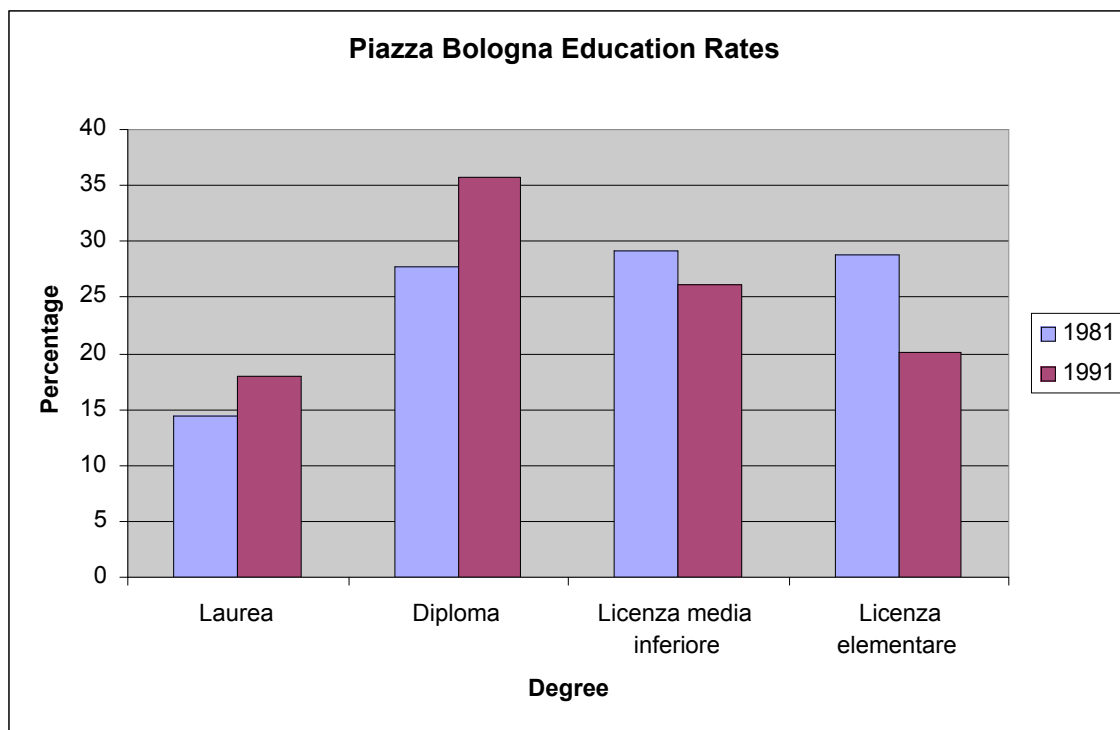


⁵⁷ ISTAT: Statistics Office of Rome. Accessed: February 28, 2005.

⁵⁸ Ibid.

It is evident from the graphs above that Piazza Bologna is both highly literate and well-educated. Less than 1% of all residents in this neighborhood cannot read. While 46% of the Piazza Bologna residents have completed their elementary and junior high education, more than 1/3 of the entire neighborhood has finished high school. When comparing the our neighborhood to Pietralata, a community just east of Piazza Bologna, one can see that Piazza Bologna is fortunate enough to make solid investments in education. Nearly 77% of Pietralata’s educated population has not received their high school diploma.⁵⁹ Not surprisingly, that neighborhood suffers from remarkably high unemployment rates—nearly 10% of the working-age population was unemployed in 1991. While Italian law only requires that students attend school until the age 14, still 36% of all Piazza Bologna residents have earned their high school diploma. This correlates with the low unemployment rates of Piazza Bologna, which are under 2%, as well as the high university student population of the area.⁶⁰

GRAPH 2



⁵⁹ The People’s Planners and information from ISTAT. March 1, 2005.

⁶⁰ According to BMML contacts in Piazza Bologna, at least half of the Piazza Bologna population is made up of university students.

The above graph illustrates education levels over time.⁶¹ The change in education rates from 1981 to 1991 can be accounted for by the 10 years that have elapsed between census data. The decrease in the completion of early education could merely reflect the change over time or the decrease in overall population. What is interesting to note, however, is the increase in diplomas earned and college degrees (laurea) obtained. It is very likely that this graph reaffirms that younger children are not being raised in Piazza Bologna, and higher education students make up the majority of the area's demographics.

Maintaining families in Piazza Bologna. From BMML's visual observations of Piazza Bologna, the great presence of schools in this neighborhood seems to appropriately fulfill the demand for education. If young families are made aware of the impact the schools have had, then it is possible that they will see Piazza positive consequences for the economic stability of the region, as young families that recognize the benefits of good schools will be more willing to contribute to the upkeep of the area.

Furthermore, if Piazza Bologna wishes to maintain their university student populations even after many have completed their studies, the neighborhood may want to consider promoting the area as a near-by Collegetown for Universita Roma's *La Sapienza*. In San Lorenzo, an adjacent neighborhood, Rome University's Medical and Psychology department bring in a great student clientele, as the total population of the university is just under 6,000 students.⁶² If the area took steps to create a more desirable area for young professionals just starting out, they could retain their student base. If Piazza Bologna could keep their well-educated population, they could maintain student housing and experience less turn-over rates, and sustain their already economically viable neighborhood. Efforts to achieve this goal will be further explored in the upcoming weeks.

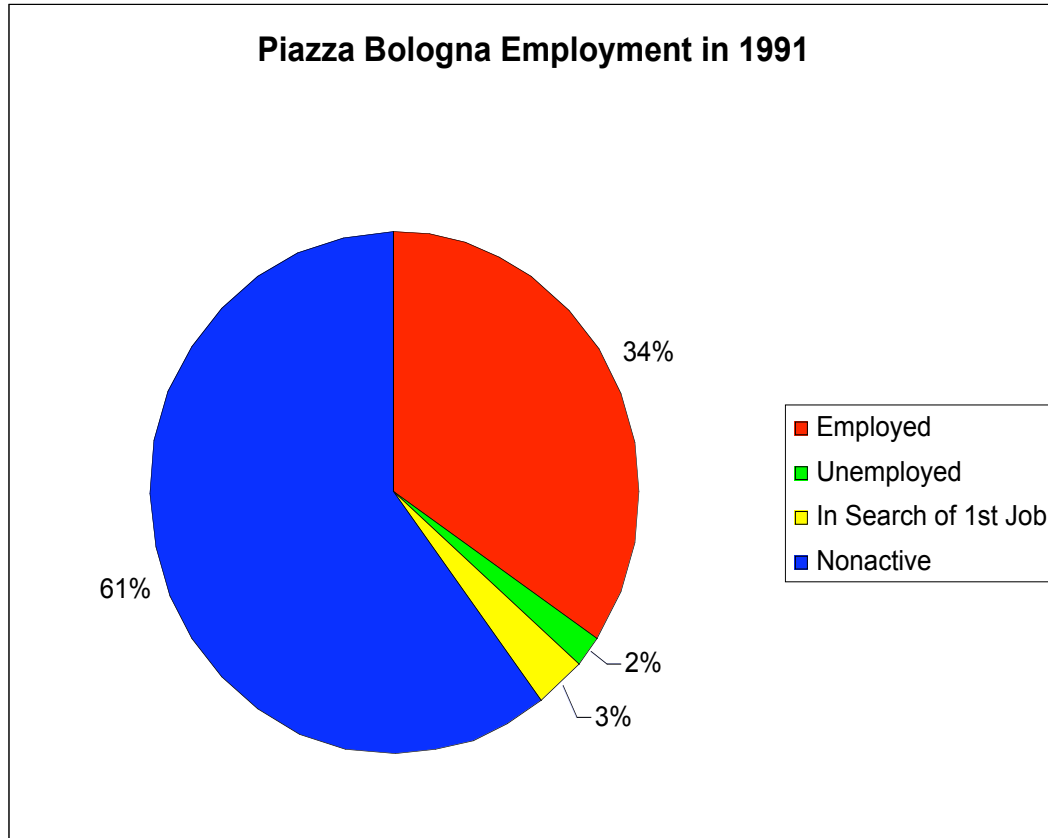
Current State of Employment. Piazza Bologna is a thriving commercial area that is also highly educated. A range of jobs exist in Piazza Bologna. In the center, many small retail stores line the streets. On the northern end of Piazza Bologna, there is a major agricultural agency for Lazio that employs approximately 400 to 500 people. The Post Office, supermarkets, and small stores that line each and every major street also provide employment opportunities.

⁶¹ ISTAT: Statistics Office of Rome. Accessed: February 28, 2005.

⁶² <http://www.uniroma1.it/>. Accessed: March 5, 2005.

Yet despite the impressive pool of educated, potential employers that live in the neighborhood, a great percentage of the region is “non-active” in the workforce. Refer to the following graph that illustrates the percentage breakdown of employment in 1991.⁶³

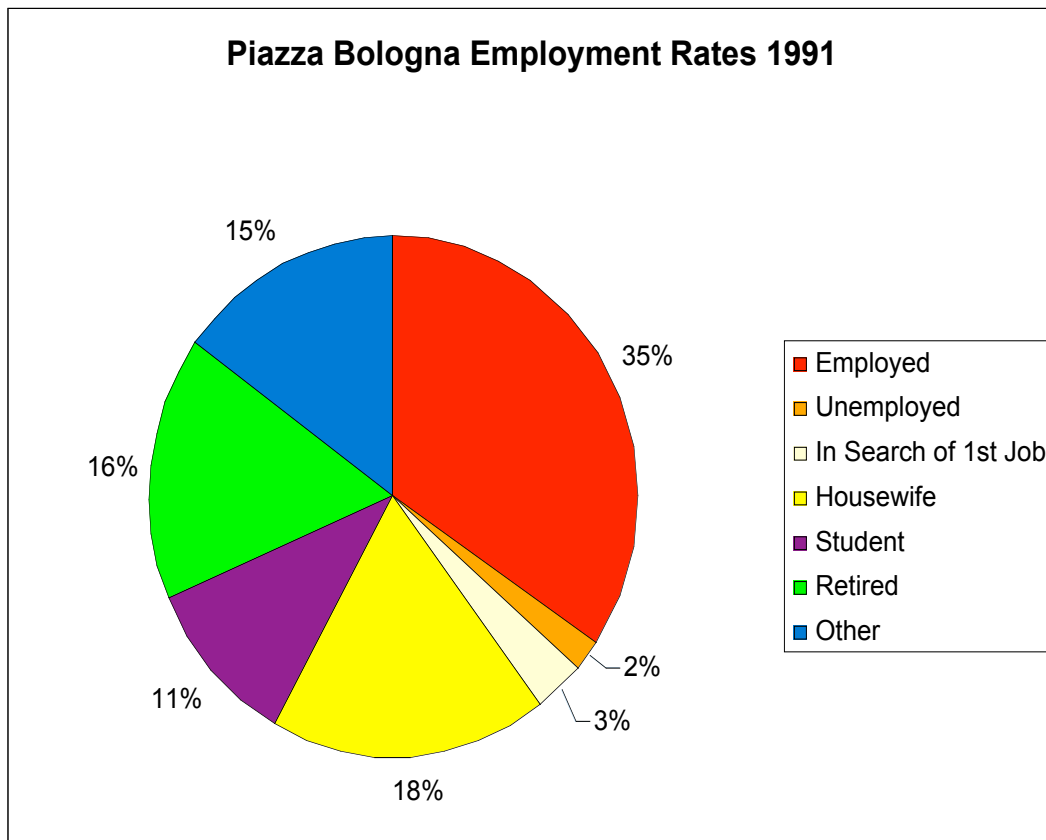
GRAPH 3



According to the statistics from the Statistics office in Rome, only 34% of Piazza Bologna is employed. The other 65% of the area can be classified as: non-active, unemployed, or searching for their first job. The “Non-Active” category can be further understood by the next graph.

⁶³ ISTAT: Statistics Office of Rome. Accessed: February 28, 2005.

GRAPH 4



While 2 percent are unemployed, and another 3 percent are searching for their first job, 62% of Piazza Bologna is comprised of students, housewives, retired and other. This fact reflects upon the social conditions of the area. Since it is a mostly well-to-do middle income neighborhood, many families have the luxury of one spouse not working. The elderly population is reflected in the percentage of retired persons residing in Bologna. In contrast, Pietralata's unemployment rate is nearly twice that of Piazza Bologna, reflecting the social conditions of the area. This particular neighborhood is classified as a lower-income region, with low education rates as well.

The statistical data provide quantitative evidence that only approximately 10 percent of Piazza Bologna residents live and work in their neighborhood.⁶⁴ Although BMML's visual observations of Piazza Bologna included a substantial immigrant population, according to our contacts in the region, very few actually live in Piazza Bologna. Immigrants primarily fulfill the

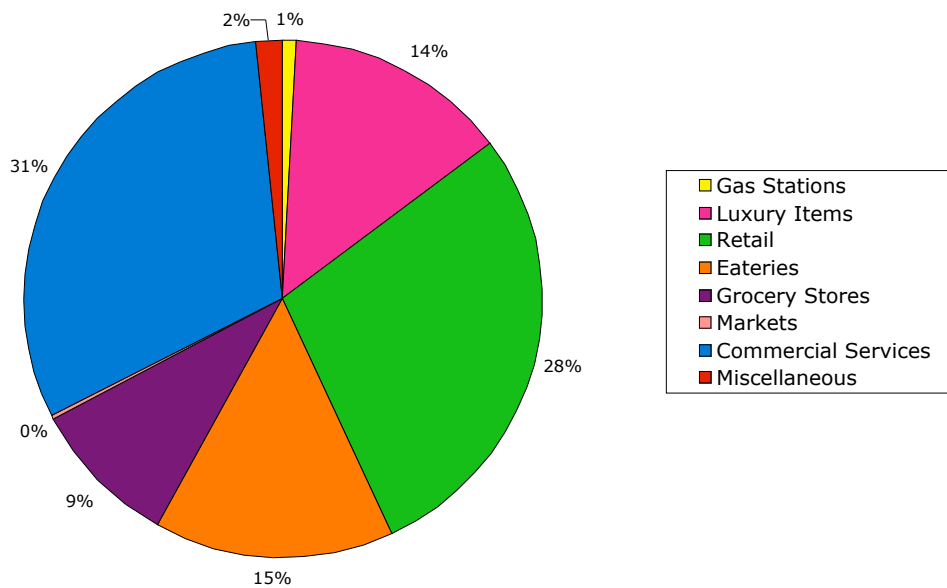
⁶⁴ Contact from Piazza Bologna: Carlo Brizzi. Interviewed: March 2, 2005.

employment sectors. The converse is true, however, for the Jewish population: while they make up a sizeable percentage of the owners of the stores along Viale delle Provincie⁶⁵, the Jewish resident population far surpasses that of the immigrant population. According to Signore Brizzi, a Piazza Bologna resident, the immigrant population uses the area for entry-level work, while the Jewish population is typically wealthy, and can thus afford the housing in this area. (Although housing in Piazza Bologna is by no means inexpensive, it is far more affordable than central Rome. Thus, many Jewish residents who are unwilling or unable to live in central Rome relocate to Piazza Bologna.)

In order to gain further insight into the economic nature of commercial services, BMML has revisited these initial observations and has developed the graph below that illustrates the allocation of commercial space in Piazza Bologna.

FIGURE 5

Commercial Establishments in Piazza Bologna*



*BMML Int'l Fieldwork: Spatial Analysis of Piazza Bologna. February 7, 2005.

⁶⁵ According to Signore Brizzi, the Jewish population also makes up 30% of the entire city's commercial activity.

While a detailed explanation of what types of establishments were included in each of the eight groups was based upon the Terms of Reference that was initially received from the client, BMML has reproduced this list in this report to supplement our analysis.

- **Gas Stations** include gas stations only.
- **Luxury Items** include but are not limited to commercial stores that are meant to pamper the individual. Examples in Piazza Bologna are: hair salons, jewelry stores, watch stores, perfumerie, yacht, spas, tanning salons, cinemas, etc.
- **Retail Items** are comprised of all clothing stores, furniture stores, fabric stores, toy stores, hardware stores, florists, etc.
- **Eateries** refer to any sort of eating facility, ranging from restaurants to *gelaterias* to cafes, and so forth.
- **Grocery Stores** include any sort of commercial facility that sells food, but does not offer on-site consumption. They range from large establishments to small specialty food stores.
- **Markets and Street Vendors** include but are not limited to open markets, vendors along the sidewalks, other items sold through the back of an automobile, etc.
- **Commercial Services** are categorized as all other economic activity not already mentioned. They include but are not limited to: electronic stores, internet spots, travel agencies, Western Union, banks, movie rentals, tabacchi, plumbers, cobblers, laundromats, auto supplies, the local gas companies, etc.
- **Miscellaneous** is a category used to describe establishments whose economic influence on Piazza Bologna has yet to be determined by BMML. Examples are: safety labs and “Jump,” a safe house for homosexuals, etc.

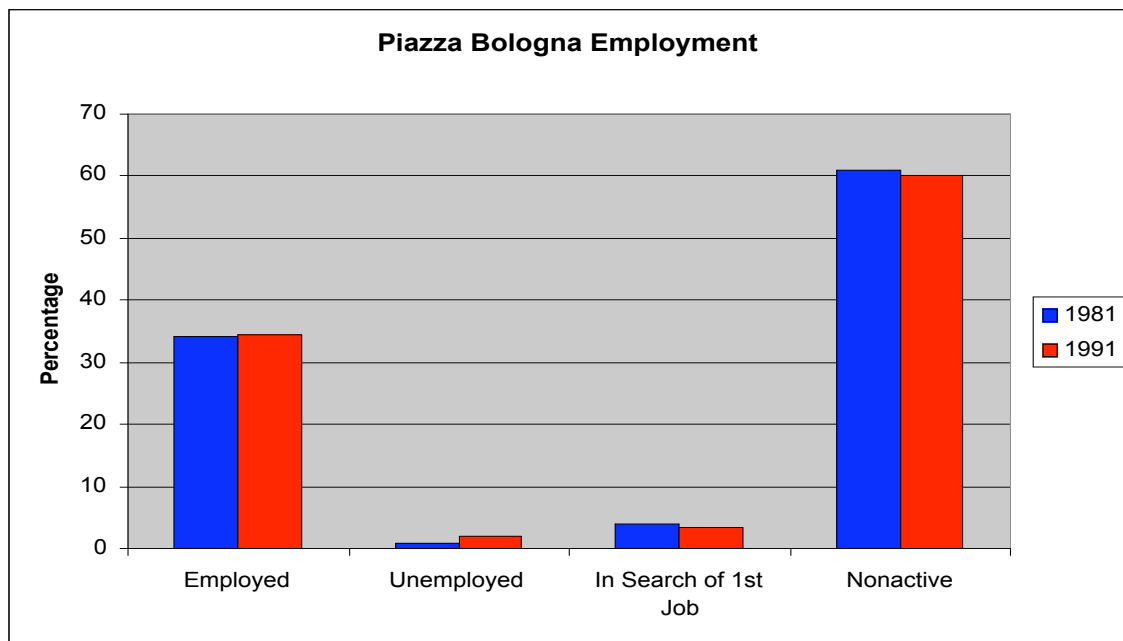
What is most notable about the distribution of commercial establishments in Piazza Bologna is how there is no significant lack or absence of any particular service. As of 2005, Piazza Bologna appears to have a stable balance of eateries, luxury goods, retail, markets and more. The variety of services seems to support any particular socio-economic, ethnic and/or cultural groups: high and low end clothing, fast food and upscale restaurants, *gastronomicas* and kosher delis. Although a resident Piazza Bologna writer expressed sentiments of annoyance at the high level of commercial activity that now exists in the neighborhood however, currently the number of establishments and services is settled at a sustainable state. Furthermore, this thriving economic situation is overall beneficial to the sustainability of the region. For a spatial understanding of Piazza Bologna’s commercial activity, please refer to Appendix D.

The composition of the resident population will have a profound impact on the type of commercial activity of the area. Since the Jewish population in Piazza Bologna is significant, the

presence of Kosher delis and specialty stores fit their particular needs. Most of the stores and services in Piazza Bologna (with the exception of transportation services) meet the needs of their residents. Furthermore, the presence of internet points, ethnic specialty stores and South Asian phone-cards, shows that Piazza Bologna is able to address not only its residents, but its workers. This strengthens the desirability of the area as an employment center and a residential neighborhood.

Healthy commercial activity. Although the fact that the majority of Piazza Bologna residents do not work may be troubling initially, upon closer inspection, this may not be problematic for the neighborhood’s employment and commercial activity⁶⁶. Students, housewives and retired residents contribute heavily to the commercial activity in the area. These residents spend much of their pension on the housing in the area, as well as basic needs. Their financial input helps keep the Piazza Bologna economic cycle circulating. Money used to purchase goods will eventually be used to employ others from the outside, which will spend some of their money in Piazza Bologna as well, as many stores cater to the specific needs of the working population.

GRAPH 6: Piazza Bologna Employment Over Time (1981-1991)⁶⁷



⁶⁶ The impact retired and single adults have on the economic situation in terms of housing may be less beneficial and straightforward.

⁶⁷ ISTAT. Statistics Office of Rome. Accessed: February 20, 1005.

As seen by the graph above, the change in employment from 1981 to 1991 has resulted in fewer people employed, fewer people searching for their first job, and fewer non-active residents. It has also resulted in slightly higher unemployment. These changes are not of concern, as many of the changes could be due to the gradual population decrease in the area. Furthermore, the new unemployed workers could be accounted for by non-active citizens searching for employment.

In light of these findings, it is clear that Piazza Bologna's commercial activity serves everyone. Because the stores and restaurants are appropriate responses to demand, the economic business cycle for the area seems to flow with little disruptions. The employment sector is filled by the immigrant and non-Bologna resident population, who are in turn, catered to by the various commercial options. Although Piazza Bologna is comprised mainly of students, single adults and the elderly, the presence of baby stores, toy stores, and ethnic specialty stores shows that the economy of the area reflects the social character of the region. Although most people who work in Piazza Bologna do not live in the area, this fact does not seem to pose a problem for the sustainability of the area. Overall, the employment sector and commercial activity of Piazza Bologna seem both sustainable and economically healthy.

In order for BMML to obtain a comprehensive understanding of the economic situation in Piazza Bologna, much more information would be helpful. For example, the income levels and cost of living for the neighborhood cannot be found, as the statistics available do not include these data. Information on the industries and commercial activities, although available, are presented in such a manner that even Italian experts⁶⁸ have difficulty at times deciphering its meaning. Learning the annual revenue of the commercial activity in Piazza Bologna would also be helpful in truly understanding how the economic cycle runs in the area. It is very likely that the more information available, the more issues we can address in the future. Also, a thorough comparison of Piazza Bologna in relation to other areas (such as Prati or Toraccia) will offer a better vision of what the neighborhood's current and future economic situation is.

⁶⁸ Professor Gregory Overton Smith, Sociology Department at Cornell University in Rome.

TRANSPORTATION

Transportation in Piazza Bologna is also an area of economic interest for Municipio III. Although not initially apparent, the great highway that travels near the neighborhood has a profound economic influence on Piazza Bologna.

Highway Tangenziale. During the 1960 Olympic Games hosted in Rome, a major reconstruction of the city's highway system took place. The Tangenziale highway, also known as the ring road surrounding Rome, runs through the Southeast corner of Piazza Bologna, and has a tremendous influence on both the environment and the economic well-being of Piazza Bologna. Pollution from automobiles is a major concern, as evidenced by the surveys conducted from an earlier study. An equally grave concern, however, is the noise pollution that arises from the Tangenziale. According to longtime residents of Piazza Bologna, the highway cuts straight through several residential areas, bringing pollution, litter and noise to the upper floors of every building. So for residents who relocated from the city to escape the congestion, the noise of this highway defeats their actions. Unwanted clamor became such a problem that today the highway is closed from 11pm until 6 am. It is likely that those who cannot use the highway must find alternate means of traveling. This may mean more revenue being placed into the public transportation system. It is possible that those who wish to come to Piazza Bologna during highway off-hours may do so by metro.

Analysis of Transportation in Piazza Bologna. Highway Tangenziale is an example of how the economic interests of the country and city of Rome as a whole affect the economic interests of Piazza Bologna. The highway provided the access necessary for the Olympic Games which affected how people could reach Piazza Bologna. Though the highway has some negative consequences, it also brings positive attributes to the region. It offers a fast connection to all outlying areas of Rome as well as fast transportation circumnavigating the city and thus is an asset for bringing people in and out of the neighborhood. It also brings people to and from Stazione Tiburtina, a major connecting point in the area and could be an easy route for those that work in the neighborhood. For the presence of the road to maximize all benefits, the neighborhood should put more funding into maintaining the houses most affected by the road. This sector of the neighborhood currently has the poorest quality of housing. If the highway

helps to bring funds to the neighborhood, then funds should be reallocated to the citizens most affected by the highway.

HOUSING

The Current State of Housing. According to *Gabetti*, and *Technocasa*, two of the major real estate agencies in Piazza Bologna, living in this neighborhood is quite expensive. The estimated median price to own 100 square meters is 3,900 to 5,300 euros rent per month. According to the *Stimcasa* real estate representative, housing prices range from 1000 to 1400 euros for a two bedroom apartment, and can go all the way up to 2500 for just an attic. While expensive, this is actually more affordable than central Rome, where 80 square meters is on average 4,000 euros per month.⁶⁹

These numbers were surprising because the initial exterior building survey lead the team to believe that the quality of housing was mostly medium and high end real estate was the rarity. Personal interviews with residents proved, however, that housing quality cannot be determined by exterior observations. It would be helpful for BMML to be granted access to see a much larger number of the interiors of buildings, in order to conclude what the true tiers really are, and whether the quality fits the price. Characteristics to determine housing quality would include: the presence of complete kitchen and plumbing facilities, the availability of telephone services, and the number of occupants per room, the water supply, sewage system, toilets, fuses, and rodents, interior and exterior water leaks, and heating or lack thereof.

For fairly well-to-do residents, such as those interviewed, renting in this area is quite expensive. Fifty square meters of space on the Northern side of Piazza Bologna is about 815 euros per month, not including other expenses. Interestingly, the writer interviewed, who moved in more than forty years ago, has been lucky enough to benefit from rent control. Thus, his 180 square meter home has been at 1500 euros per month. The issue of rent control must be examined further, because it could explain how the elderly residents can continue to live in such an increasingly desirable and expensive area. For example, prices have risen drastically (almost double) since the transition to the euro; what used to cost 200,000,000 lire now costs 200,000 euros (the direct conversion should have been to roughly half that). Strangely, even with the

⁶⁹ Contact from Piazza Bologna: Carlo Brizzi. Interviewed: March 2,2005.

uneven conversion, these prices will not fall. But because of this imbalance, they are not expected to greatly increase in the short-term either. This makes Bologna sustainable because it is an optimal period to purchase and sell homes. Since prices will not rise in the near future, it is a beneficial to buy immediately. And if an owner has owned his or her property since prior to the conversion to the euro, this is most certainly an optimal time to sell. Finally, if they sell to re-buy in the same neighborhood, they will make out relatively even. In this sense, the housing market is quite stable and sustainable.

Problematic Illegal Subletting. One aspect that threatens this sustainability, however, is illegal subletting. Each real estate agency expressed their concern with illegal subletting, citing it as a major reason why their establishments lose business. This may have extreme consequences for the region. Typically, owners of homes in Bologna are the elderly. While one agency stated that the vacancy rate in this neighborhood was less than 1%, another explained that there were no vacancies at all in Piazza Bologna. This, compounded with the fact that there is no more room for residential construction, leads BMML to believe that the rental rates for Piazza Bologna could exponentially increase. Because each housing unit's rental space has become all the more precious, owners may feel they can charge whatever they would like—without the help of real estate agencies.

One possible source of the diminished housing supply could stem from hoarding. Architect Ferruccio Rossini, the assistant of territorial planning for Rome, explained the negative impact that real estate hoarding has on housing prices. Several real estate funds choose to keep portions of their housing stock unavailable for rent or ownership, artificially driving up the prices. It is possible that the older residents of Piazza Bologna could be living in second homes in different areas but still holding on to the property they own in Piazza Bologna. Having empty apartments in such a desirable area could make prices higher than they should be. This issue should be examined, and it would be useful to determine how many apartments are empty and if the vacancy is really close to 0%, as the real estate agents reported. If the apartments were empty but privately owned, it would be reasonable to charge a higher tax on empty apartments in order to simultaneously discourage the practice and increase revenue.

Student Housing. Many university students have been subjected to unreasonable fluctuations in prices from illegal subletting. One contact from Piazza Bologna states that students make up approximately half of the people who live in Piazza Bologna. If this young

adult population finds housing through legitimate means, prices can be better regulated. If real estate agencies must compete with one another for student renters, the prices actually might decrease, since agencies wish to attract more student renters. Student renters are perhaps the most attractive clientele base since the steady flow of incoming and outgoing students provides a constant source of revenue.

Technocasa Realtors informed BMML that the two most expensive parts of the neighborhood are directly around the central area and in the Northern part. The most expensive streets are Viale Massimo (North) and Via Micaelo di Lando (Northeast quadrant). *Nuda proprieta* is a real estate term, referring to how buyers purchase a home with an elderly population still present, and then claims the home after the elderly pass away. The majority of people who request housing are young people, especially young couples and single students.

Because the university relies so heavily on Piazza Bologna to house its students, it would be rational to propose that the university contribute funds to Piazza Bologna's housing so students can be better accommodated.

Affordable Housing. One of the most interesting aspects of Piazza Bologna is the presence of the traditional, *Case Popolare* housing units in the Southeast quadrant of the region. *Case Popolare* in this area was once a government initiated endeavor to alleviate the inadequate housing situation. Low-income citizens would present their case to the Commune di Roma, and if deemed needy, would be assigned an apartment. Each apartment has been built in the most cost-efficient but least aesthetically-pleasing manner. Today, the public housing program is no longer present in Piazza Bologna, as it has become too expensive to do so in the neighborhood. But the design of the building, as well as its original use, has made living in traditionally *Case Popolare* housing more affordable than other areas in Piazza Bologna.

Affordable, however, is a very subjective term. Unlike the United States, Rome does not have a formula to determine whether a resident is overpaying for housing. In The United States, if one's rent is 30% or more of one's total income, the resident is overpaying. Architect Rossini asserts that a middle class resident living in the Rome metropolitan area spends between 40% and 60% of total income on rent. It would be beneficial to determine the percentage of income that the average Piazza Bologna resident spends on rent. This would help BMML conclude how dire the housing situation is, and whether the cost of living in Piazza Bologna is too high and therefore not sustainable.

Recently, a new method of housing ownership promotion has emerged that may make Piazza Bologna more sustainable. The method involves insurance companies and the housing market. Our sources from *Technocasa Realtors* explain that insurance companies buy houses, and rent them to low-middle income citizens. Over time, if the home is kept in a suitable fashion and the occupants are still satisfied with their home, they have the option to buy. This sort of procedure may foster self-sufficiency, and help Piazza Bologna renters feel even more connected to the area and its amenities as they become buyers. The investment that these companies are making within Piazza Bologna is also extremely important for the area, and the real estate investment strategy should be promoted and extended to other local companies as well. If companies have a real investment in the area, they can't suddenly pull out and leave if the economy changes. Their personal stake will keep them and their businesses in Piazza Bologna, insuring continuous commercial activity and financial transaction.

Furthermore, ownership typically creates a higher quality housing market, since an owner has more of stake in his property than a renter. Also, Architect Rossini also reported that renters typically make 30% less of an income than a homeowner. A higher income class will bring more revenue to Piazza Bologna. The *Stimacasa* real estate representative explained that the proportion of rented units to owned units is probably 50/50, maybe a little more rental. While Piazza Bologna's economic outlook would be brighter if the ratio of owned to rental was greater, this proportion is most likely inevitable due to the large student population. Despite the juxtaposition of two contrasting types of residents (the upper class *signorile* and the students) people are still satisfied with the neighborhood, as is evident by the prices. BMML stipulates that the diversity of the neighborhood is what keeps it thriving. The significant turnover of the rental units constantly brings in citizens with high skills and high education levels, which contributes different assets to the neighborhood's character. The metro and the university have attracted a lot of younger students and others. At the same time, the seniors and professionals who stay long-term maintain the character, integrity, and upper class nature of Piazza Bologna.

Density as a problem in Piazza Bologna. The following graphs and tables illustrate the source of Piazza Bologna’s density problem.⁷⁰

GRAPH 7

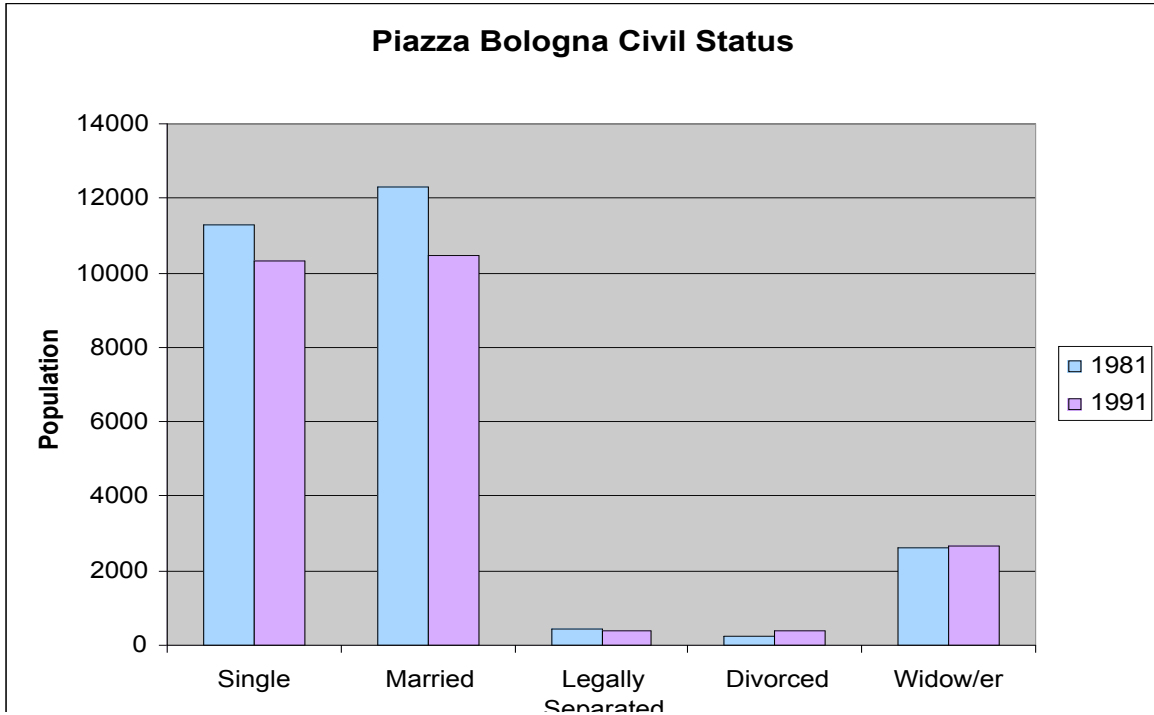


TABLE 2

Piazza Bologna Civil Status						
Year	Single	Married	Legally Separated	Divorced	Widow/er	Total
1981	11311	12325	455	220	2637	26948
1991	10313	10451	386	393	2663	24206

TABLE 3

Piazza Bologna Civil Status (Percentages %)						
Year	Single	Married	Legally Separated	Divorced	Widow/er	Total
1981	41.97	45.73	1.68	0.81	9.78	100
1991	42.60	43.17	1.59	1.62	11	100

The majority of residents are single or living alone, and thus most apartments are being occupied by one person. This occupancy status poses a problem when the apartment is extremely large and still occupied by only one person. A greater supply of apartments is required for a population of people that live alone, leading to the need for the dense high-rises that crowd Via Aprile and Via

⁷⁰ ISTAT. Statistics Office of Rome: February 21, 2005.

Province. A solution would be subdivision. Since students are *illegally* crowding 5 to 6 people in a single apartment in order to divide the expensive price of living in the larger apartments, subdivision would provide a greater supply of cheaper housing. While the more expensive housing does bring greater revenue to the neighborhood, the side effect is the illegal subletting and crowding that residents must engage in in order to live in this desirable area close to the university. This could be the greatest source of Piazza Bologna's density problem.

It is important, however, to not completely deplete the supply of higher end and larger apartments. To be an economically sustainable neighborhood, Piazza Bologna needs a diverse supply of housing options. That way, if a dip occurs in the market in one area (either the student stock or the high end stock), then the neighborhood would not lose all of its population.

Overall look at Piazza Bologna's economic state. Ultimately, the economic situation in Piazza Bologna needs to be further studied. But from the information BMML was able to gather, During BMML's initial map analysis of Piazza Bologna, a foot survey was conducted taking note of every commercial establishment within the borders of the neighborhood. After collecting this data, BMML categorized the variety of stores and services that were observed into eight different groups.

To draw a more comprehensive economic development plan, BMML needs to obtain numbers concerning the impact that housing costs contribute to Piazza Bologna. These numbers would include property taxes, mortgage payments, rent payments, condominium and other fees, real estate taxes, and premiums for home owners insurance. Also, electricity costs, gas costs, water and sewer costs. Knowing these numbers would help BMML determine the true cost of living and whether residents could be paying more or less based on their income. Housing costs contribute the most direct funds to Piazza Bologna, and thus more specific information is required to draw a more accurate economic profile and plan.

In terms of education, it would be helpful to identify the percentage of the student population that decides to remain in Piazza Bologna as post-graduates. Since BMML suggests drawing a greater portion of the highly-educated student population to the community, it will be necessary to determine if this is occurring now and what the chances of it occurring are. More specific employment information is also required, such as the income of residents, businesses, and professionals. All this information will prove useful in the following installments for

BMML's client, as the policy assessment, recommendations, and plan for implementation are to follow in the upcoming weeks.