

Macon Money Social Impact Game Summary of Evaluation Results FINAL Report

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for



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Following are summary results of the Macon Money Game evaluation. The document is organized as follows:

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I. Evaluating Real-World Games

I.1 Did evaluating an innovative real world game require a unique evaluation approach?

In terms of its basic structure and components, the Macon Money assessment is not exceptional.¹ The formative evaluation monitored progress with project implementation. The summative evaluation measured success in reaching project goals.²

Evaluation of both Knight Foundation games required particular sensitivity to the following, however.

- *Nature of games:* One of the signal features of games is that their results are *supposed* to be contingent. Games have rules/constraints but, by design, are full of possibility. As a consequence, the evaluation was especially attuned to the potential for divergent reactions to/interactions with the game, reflected in different participant strategies, experiences and outcomes.
- *Intervention itself is experimental:* Implementation of social impact games in “real world” contexts is new. The evaluation closely tracked game implementation, both to confirm that the game was being implemented as planned and to generate information for project improvement.
- *Highly adapted to local context:* Both Knight Foundation games - Battlestorm and Macon Money - were carefully designed to respond to local needs and preferences. The evaluation thus closely tracked and sought to distinguish between conditions for game success that were highly contextual and conditions that might be replicated elsewhere.

I.2 Working without an initial Theory of Change (TOC)

In order to identify hypotheses that the evaluation would be designed to test, we relied on Area/Code’s game design documents and on conversations with Kati London³ and Foundation staff.⁴ Working without an explicit TOC did not turn out to be a significant impediment, however. In the case of Macon Money, especially, anticipated causal connections between game-related activities and outcomes were relatively direct and clearly defined from the start. For example, the outcome: “social contact between Maconites who might not otherwise meet” was the direct anticipated consequence of players seeking and finding matches for their bonds, just as the outcome: “new clients for participating local businesses” followed from the distribution of bills to players to spend at these businesses. Even the anticipated relationship between playing the game and changes in players’ attitudes toward Macon was relatively easy to “unpack” and track through survey and other research. (These and other core causal connections will be described in a draft TOC which we will append to our final report).

Always more difficult to assess is the relationship between outcomes and impacts. In the time allowed for the evaluation, it was not possible to assess the relationship between increased levels of optimism

¹ The same is true of the Battlestorm evaluation.

² Formative evaluation formed part of a wider process evaluation. <http://www.westat.com/pdf/projects/2010ufhb.pdf>

³ Kati London is currently Director of Product for Zynga New York. Previously she was Vice President and Senior Producer of Area/Code.

⁴ The same is true of the Battlestorm evaluation.

about Macon's future occasioned by the game and local social and economic investment. Here, however, our confidence about the promise of the game is boosted by collateral research showing a connection between place attachment, including residents' positive assessment of a community's future, and local economic growth.⁵

More complex and less clearly defined and was the anticipated impact of the game on enduring social relationships in Macon. Careful not to burden the project with unrealistic expectations, Knight Foundation staff and local partners were nevertheless curious about the game's potential to generate new social ties among Maconites, particularly across social divides. In our draft TOC, we include the creation of these new social ties as one of the game's desired effects.

I.3 Role of Knight Games Advisory Group

In addition to offering valuable feedback on our evaluation design, members of the Knight Games Advisory Group served as thought-partners for the assessment. Knight advisors whom we consulted over the course of the evaluation included:

- James Paul Gee, Mary Lou Fulton Presidential Professor of Literacy Studies at the Mary Lou Fulton College of Education, Arizona State University;
- Beth Kolko, Professor, University of Washington; Faculty Associate, Berkman Center for Internet and Society;
- Tracy Fullerton, Associate Professor, USC; Director, Electronic Arts Lab;
- Ben Stokes, PhD candidate, USC; former Program Officer in Digital and Media Learning, MacArthur Foundation.

Our conversations with these advisors led us to test the receptiveness of players to a slightly modified game design in which players get to know their match better. This formed part of our investigation of the game's potential to "weave" new social relationships in Macon.

Absent a corpus of "real world" social impact game analysis that could serve as a resource, access to thought partners who are themselves leading innovators was invaluable.

2. Adapting the Evaluation Plan

Our Evaluation Plan described game objectives in this way:

By engaging local businesses and attracting residents to a game in which they match their Bonds with others' and receive Macon Money Bills to spend at those businesses, this game aims to:

- *Promote interaction between members of the community who wouldn't otherwise connect;*
- *Attract and expose area residents to local businesses of which they might not know;*
- *Encourage Macon residents to visit the College Hill Corridor and give students reasons to venture off campus;*
- *Build on existing local efforts of Knight Foundation, College Hill Corridor Commission, College Hill*

⁵ <http://www.soulofthecommunity.org/sites/default/files/OVERALL.pdf>

Alliance, Mercer and others.

Our evaluation promised in turn to document:

- *The effect of the game on student and resident awareness and perceptions of amenities and offerings in the College Hill Corridor; the patron-base among businesses in the corridor; the diversity of relationships among members of the Macon community; as well as*
- *The effect of the game on the work of the College Hill Alliance and other community partners.*

Proposed research methods included:

- *a pre-program survey administered when players join the game combined with a follow-up survey administered to players 2 months post-game;*
- *Interviews with 8 matched players;*
- *Interviews with a selection of players who received Bonds but did not find a match or who matched a Bond but did not spend a Bill;*
- *Participant observation of game-related events;*
- *Focus group interviews with representatives from participating businesses;*
- *Baseline and follow up interviews with the College Hill Alliance and other community partners.*

As well as:

- *Material review, including review and analysis of the results of Area/Code's monitoring of game participation and outcomes;*
- *Web-based research, including Macon Money website analysis;*
- *Interviews and dialogue with Area/Code staff and Knight advisors.*

Adjustments to this evaluation plan included:

- *When it proved difficult to schedule combined interviews with players who had matched a bond, and to find and engage players who were not winners, we decided to supplement in-person interviews with a larger number of one-on-one telephone interviews. This proved to be more convenient for interviewees and resulted in a good mix of respondents;*
- *Our baseline survey questions for MM players were added to Area/Code's Terms of Service (TOS) agreement several months after the game started, hence only some players who filled out the survey had never played the game before. We therefore adopted a dual strategy: tracking outcomes for a relatively small number of "true" baseline respondents and for a larger number of players based on the number of times they played the game;*
- *As we learned more about the range of experiences that participating businesses were having in the game, we decided to supplement our focus group research with a post-game survey to all participating businesses;*
- *As we learned more about players' understandings of the larger social purpose of the game, we modified our survey protocols to more fully explore players' interest in "social weaving" as a component of game play.*

These and other smaller adaptations are emblematic of a process of on-going refinement in our evaluation of both Knight Foundation games (Battlestorm and Macon Money). Given their experimental nature, we sought to identify and explore a range of processes and outcomes as these emerged.

3. Evaluation Results: Findings Relevant to Players

Evaluation findings summarized below are based on the following sources:

- Pre- and post-game interviews with:
 - Knight Foundation Program Director Beverly Blake;
 - Vice President and Senior Producer of Area/Code Kati London;
 - College Hill Alliance lead staff members Jessica Walden (pre-game) and Nadia Osman (post-game);
 - Area Code's local project manager Mechel McKinley.
- In- depth interviews with 26 Macon Money Players
- Results of pre-and post game surveys administered to Macon Money players (n=757)
- Area/Code bond tracking data
- Analysis of Macon Money website and Facebook traffic

3.1 The numbers

In all, more than 5,000 Macon Money bonds were distributed by Area/Code to residents of Macon during the period from October 2010 to April 2011. Eligible players included anyone 18 years and over living in one of three zip codes (31201, 31204, 31207). U.S. census data (2000) show a high proportion of students in 31207 corresponding to the Mercer University campus. Census profiles of the other two zip codes, which encompass the College Hill Corridor (CHC), parts of downtown and surrounding residential areas are broadly similar to each other and to all of Macon, with this exception: both 31201 and 31204 have a lower proportion of African American residents than Macon as a whole.⁶

By May 2011 when the last Macon Money bonds were redeemed, more than 3,500 residents of Macon had played the game and over 1,200 players had made at least one match. Some residents played multiple times and made as many as 7 matches (players were limited to one new bond per month). These large numbers are important because the game's success, including its impact on people, places and business prospects in Macon, depended on a critical mass of residents playing the game.

3.2 Who played the game

Area/Code's target audience for the game was Mercer University students and local residents 18-50 years old. This is in line with the goal of exposing Mercer students and members of Macon's "creative class" to parts of the city and to local businesses they might not know of.⁷ Lead staff at the College Hill Alliance (CHA) noted that the focus on Mercer students had other possible benefits. According to Program Director Nadia Osman, the game had the potential to enhance Macon's reputation as a college town and mitigate "town v. gown" tensions as students and local residents connected to match their bonds.

⁶ Race/ethnicity of Macon population in 2000: 66% Black or African American, 30% White, 3% Other. Race/ethnicity of 31204 in 2000: 60% Black or African American, 36% White, 4% Other. Race/ethnicity of 31201 in 2000: 59% Black or African American, 35% White, 6% Other.

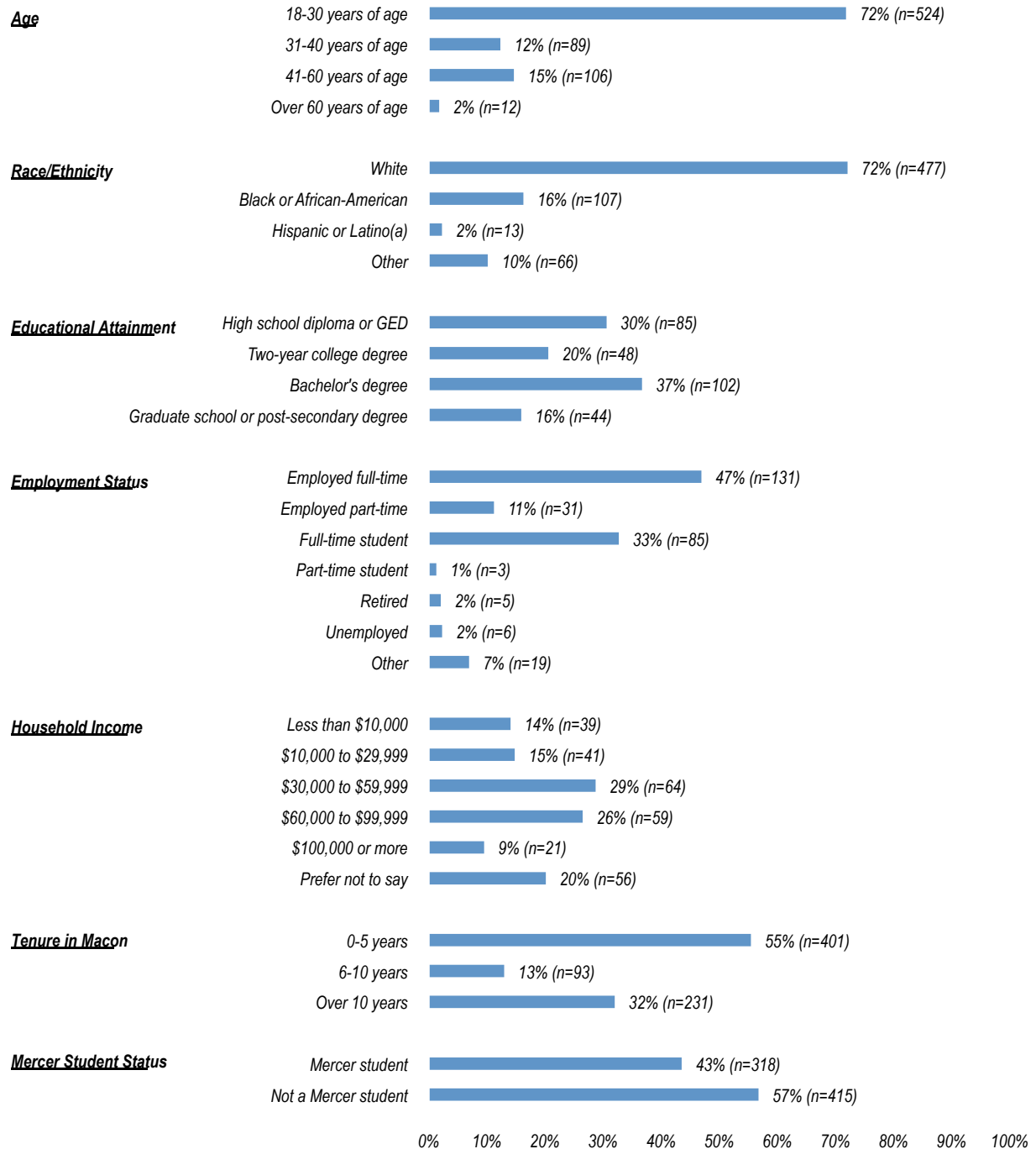
⁷ See Area/Code's Knight Games Initiative Macon Research Brief (January 2009) and Macon Money Game Design Document (July 2010).

Our research confirmed that Macon Money was in fact attractive to a core group of students and young professionals.⁸ As described in Figure 1, most respondents to our surveys (pre- and post-) are 40 years or younger (84%). A large proportion of respondents are Mercer students (44%) and more than half of respondents ages 31-40 are employed full time with incomes reaching \$60,000 and above. Our results also suggest that more women than men played the game,⁹ a small but significant proportion of older and long time residents of Macon played the game and, overall, African American players were under-represented based on a comparison of our results with population statistics for the three zip codes.

⁸ Data presented here are based on the results of baseline and follow up surveys that we administered to players. For further information about our survey sample, see Appendix 1.

⁹ In our sample, twice as many women as men played the game. Based on evidence from the Macon Money website and the testimony of Area/Code's local project manager, female players were in the majority but in a slightly lower proportion.

Figure 1.
Game demographics based on results of baseline and follow up surveys (n= 757)

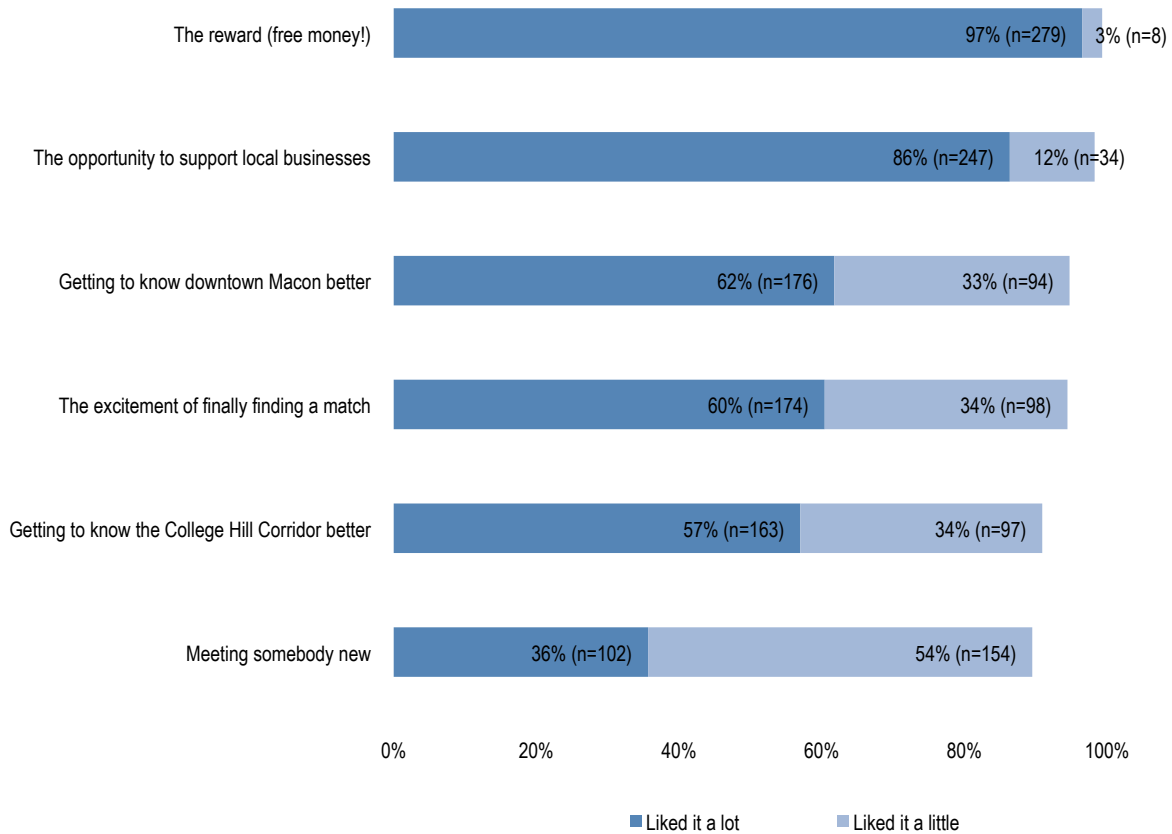


Note: Demographic questions about educational attainment, employment status, and household income only asked on follow up survey.

3.3 What players liked about the game

Our research indicates that players had different motives for joining the game and that what they liked most about the game sometimes changed over time. Figure 2 below shows that the money reward was appealing to the most number of survey respondents followed by the opportunity to support local businesses.

Figure 2.
Player Ratings of Various Aspects of the Game (N=289)



Note: Remaining percentage indicated "didn't like it at all" or "didn't care about it."

Players across the demographic spectrum said they liked getting to know downtown Macon or the College Hill Corridor better. Younger players, including most Mercer students, were least likely to list “meeting somebody new” as a one of the things they liked most about Macon Money. Our qualitative research suggests that people who were new to Macon, people living alone, mothers with young children as well as Maconites who for professional reasons value meeting new people especially liked this dimension of the game.

Macon Money satisfied some players' appetite for a challenge. This appears to be particularly true of repeat players who played regularly to win. Some residents collaborated to get and match bonds in groups. Many players encouraged others to play the game once they had experienced success.

Some players we interviewed were attracted initially by "free money" but discovered that the social mixing - attending local Macon Money events, finding and meeting a match - was the most exciting part for them. Our interviews surfaced several cases in which players regretted not playing more- not because of the lost opportunity to earn bills but to meet other Maconites and make new friends.

Finally, some players reported that they played the game because they thought it would be good for Macon. In the words of one long-time resident: "It's a happy, low risk, high reward sort of experience... It can't help but make you feel better about life in general and your community and where you are."

3.4 Getting players on board

According to Area/Code's local project manager Mechel McKinley, once a core group of 30-40 players became devotees of the game and spread the word through their social networks, interest in the game ignited. It took 3-4 months for the game to gain momentum, however. Survey research and our interviews confirmed that many people had difficulty understanding what the game was about based on the website description and the project manager's explanations. Nearly half of all survey respondents said that they hesitated initially because they weren't sure how to play.

A large proportion of respondents said that they thought it might be a scam (44%). Ms. McKinley speculated that skepticism was highest among low income residents. Our research shows that a larger proportion of African Americans who played the game hesitated because they thought it was a hoax. Maconites in general are not confident that exciting and good things will come their way, according to Nadia Osman. This is the public attitude that the game was in part designed to address: the feeling that Macon and its people have been overlooked.

By February 2011, enough residents were playing Macon Money to make "word of mouth" strategies more effective. The Macon Money project manager seeded this process by distributing large numbers of matching bonds at some early events. This made some people instant winners and generated excitement about the game.

Our data show that students played a critical role in boosting the number of first time players. They had the time and inclination to use online and off line means to talk about the game and provide evidence that the game was not a hoax. Our research likewise suggests that group play (offices, churches, dormitories) also drove up the numbers of Maconites who were convinced to play.

3.5 Player strategies and experiences

Macon Money bonds were distributed at Macon Money Headquarters in downtown Macon or mailed to residents who requested a bond online. Bonds were also distributed at regularly-scheduled events held in Mercer Village, the College Hill Corridor and downtown. Initially, Macon Money staff set up in public open spaces but increasingly collaborated with participating Macon Money businesses to co-host events. This had the dual advantage of promoting the business and providing a more convenient environment

for player registration, bond distribution, bond redemption, and bill distribution. In March 2011, bonds were also sent by direct mail to qualifying residents in populations groups that were least represented in the game. At that time, according to Ms. McKinley, this included people of lower income, African Americans, and men.

Once they obtained a bond, players had several ways to find a match. Attending a Macon Money event was a common strategy, since other people who had just received a bond would be on the lookout too. Just over 40% of survey our respondents reported that they found someone with a matching bond at a Macon Money event. Online strategies were also successful. One in three respondents to our survey found a match on the Macon Money website forum while an even greater proportion found a match on Facebook (51%). Over 70% of survey respondents reported that being able to play and get information both online and offline added “a lot” to the game. Notably, online strategies were used by a wide spectrum of players. Most respondents 18-30 years of age found their matches on Facebook (61%) while older players tended to use the Macon Money forum.

Our survey results suggest that most players obtained several bonds and made multiple matches (68%). And, as larger numbers of people began playing, it became easier to win. More than one in three survey respondents said they found a match by checking directly with family and friends. Several repeat players whom we interviewed said that toward the end of the game they were able to find a match within hours of receiving a bond.

Forty-five percent (45%) of survey respondents said that they played regularly with a group, such as a group of friends, colleagues at work or people at church. Nearly all respondents reported that they recommended the game to others (91%). Local project manager Mechel McKinley observed that having a core group of players who were highly-networked “connectors” made a difference. This appears to be confirmed by players’ estimates of the numbers of people they encouraged to play the game. Just over half of all survey respondents recommended the game to 5 people or less whereas six percent said they recommended the game to 20 people or more.

Nearly all players who matched a bond ultimately met with their match to collect a bill (93%). For some, this part of the process was more challenging. Several players whom we interviewed said they took time off work in order to meet their match during Macon Money office hours (12-5 pm weekdays). Half of all survey respondents who did not meet with a match to collect a bill said that Money office hours were not convenient for them or their match.

As researchers, we wondered whether meeting a stranger would be considered “risky” in Macon but soon discovered that the Macon Money HQ and local events were safe places for players to meet and redeem bonds. No interviewed players, including young women, reported feeling hesitant or uncomfortable about meeting in person with their match.

Most survey respondents reported that they spent their bill(s) on or with someone else. This “social” spending both reflected and contributed to the game’s atmosphere. Participating business owners were particularly well-positioned to monitor this. One restaurant owner whom we interviewed observed:

[Macon Money players] spent [the bills] on themselves and each other. They bought meals for each other. We had students who would run into the restaurant and say, "This is my deal and I saw your match over at such and such a place." And that person would get up and leave their food, go and find this person... They don't even tell us they're leaving (chuckling). And they would come back and say, "I got my match and I got my money and I'm paying for the whole table."

3.6 More about social media

Several social media and online components played a role in Macon Money. Unlike location-based social games where social media is a necessary condition of playing the game (e.g., players depend on GPS in their devices and social media connected to that GPS to play the game), Macon Money was designed to be a real-world game that incorporated social media as one of several tools that players, organizers and local businesses could use to enhance game experience.

Our research shows that one of the primary reasons that players turned to online and social media was to help them find a match for their bond. This type of online, interactive activity dominated both the game's Facebook page (68.8%) and website forums (94.7%). In addition, our data show that online activity rates matched offline activity, especially with certain population groups. For example, during the peak week of online activity (April 4 – 10), an offline Macon Money event was held on four of seven days. These events were all held in Mercer Village, a commercial area bordering Mercer University that attracts students who are likely to be comfortable using the web and social media. In addition, two dates during the game that saw the largest number of bond redemptions also corresponded to a week with peak online activity. The lowest level of online activity took place on dates where the offline event was in Washington Park, rather than adjacent to Mercer University.

3.7 Player outcomes

3.7.1 Application of winnings

Players' winnings per match varied from \$10 (the smallest denomination in which bills were distributed) to \$100 (the largest denomination). Since many residents played multiple times, individual winnings could reach \$700 over the period of the game. Figure 3 (below) shows that the largest share of respondents to our survey won between thirty and fifty dollars in total.

Figure 3.

Total amount in Macon Money bills that players won during the game (n= 261)



Most players spent their bill(s) on food and drink in local restaurants and cafes. Reasons for this were twofold. Restaurants and cafes were highly represented among participating Macon Money businesses, so there was more choice. And the value of most players' total winnings corresponded nicely with what could be purchased in such establishments.

More than one in three respondents said that they used their bill(s) to purchase something that they wouldn't otherwise be able to afford (37%). One young mother we interviewed used her winnings to put a down payment on a bicycle for her son. But restaurants and cafés were the greatest draw here as well. In the words of one player,

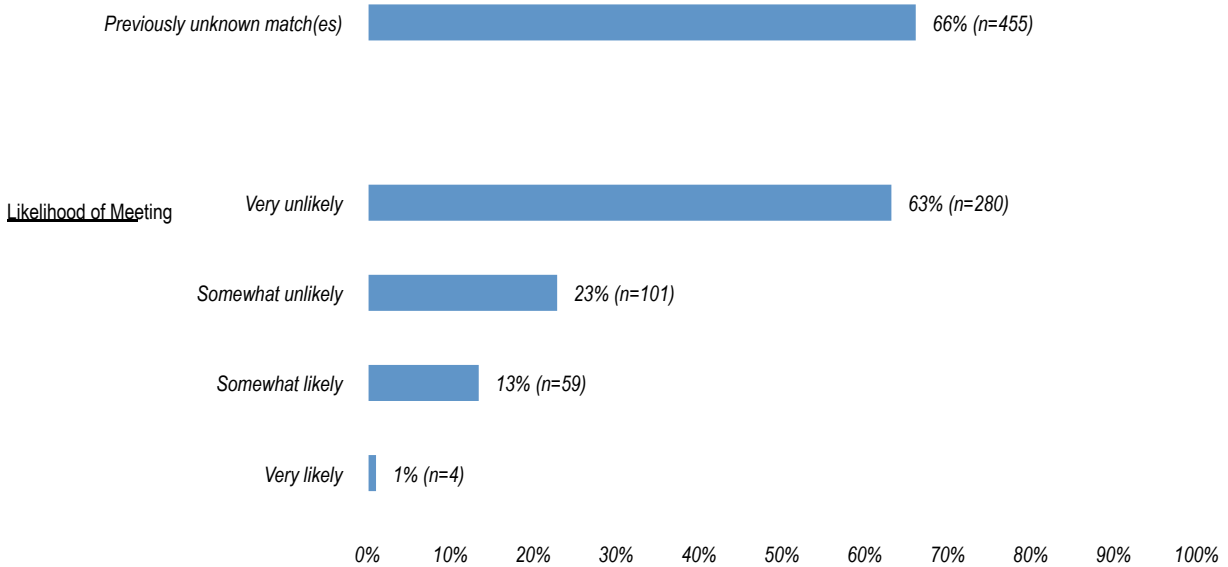
Times are so tough and eating out and going out is a luxury. And so if I can go out and check out something new, and I don't even have to pay for it, then that's great. And then once I decide if I like it, then next time when I have an occasion to go out or have a little extra spending money, then I know I have a new place I can choose from in my little repertoire.

3.7.2 New connections

All interviewees and most survey respondents reported that, as a consequence of the game, they met with another resident of Macon whom they might not have otherwise encountered. Figure 4 describes the number and percentage of matches that survey respondents said were with people they didn't already know and, of these, how likely or unlikely it would have been for them to meet, in their estimation. These results show that 66% of matches were with people who were previously unknown to the respondent and, of these, 63% of matches were with people whom the respondent said s/he would

be “very unlikely” to meet. More than three quarters of these matches were with people who the respondent classed as either “very unlikely to meet” or “somewhat unlikely to meet” (76%).

Figure 4.
Players' likelihood of meeting their previously unknown match(es) (n= 455)

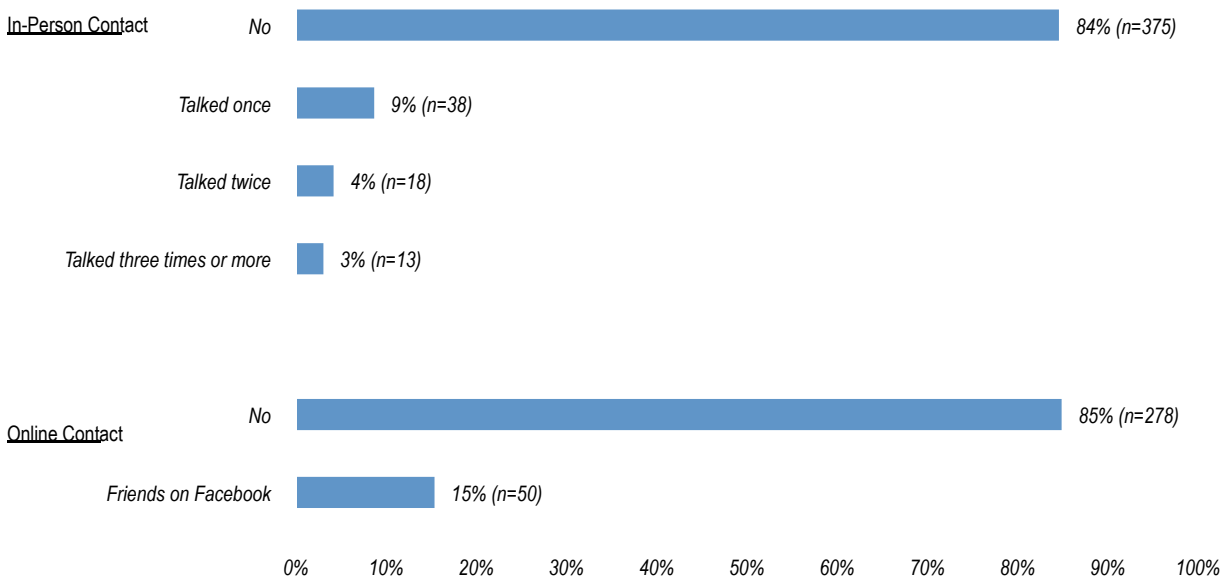


Note: Total matches described in the post-game survey (n=704).

In a post-game survey administered two months after the last bond was redeemed, we also asked players about the contact they had with residents who were previously unknown to them, during and after the game. Results are presented in Figure 5 below. They show that most social encounters with *previously unknown persons* in the game led to short conversations of 5-10 minutes and that respondents had not been in contact with the largest majority of these matches since that time (85% no further contact in person, 86% no further contact online).

Figure 5.

Players' in-person and online interaction with previously unknown match(es) (n= 455)



Although the proportions are relatively small, just over one in five of matches reported by players did lead to further personal contact, with 15% of matches becoming friends on Facebook. The highest number of matches that turned into Facebook friendships was reported by students but, upon closer analysis, we found that 13% of matches identified by nonstudents became Facebook friends. Again, the proportions are small but the pattern is significant. From this we must assume that the game gave rise to what some social network analysts call “weak ties” and that some of these were between people of different backgrounds. Social network research shows that weak ties often provide access to new ideas, information and connections.¹⁰

Here is a sample of player descriptions of their continuing engagement with a match:

- *My match was a student from Mercer and I'm actually Facebook friends with him now. I can't think of his name... I think he Facebook friended me because we have a mutual friend.*
- *(My match) actually rode down on a bicycle. I'm like, it's going to be someone that is completely out of this world! And sure enough, she wasn't American, she's Indian. Then [I find out that] we are both*

¹⁰ After Granovetter 1973. Weak ties typically provide access to new information, ideas, and connections whereas strong ties facilitate close collaboration. Strong bonds typically develop over longer periods of time. Both types of bonds are essential to healthy and sustainable communities.

taking some law classes. And we were both struggling and struggling. And I said, “You know what? Let’s get this group together and let’s form a study group.” And that’s how it went really.

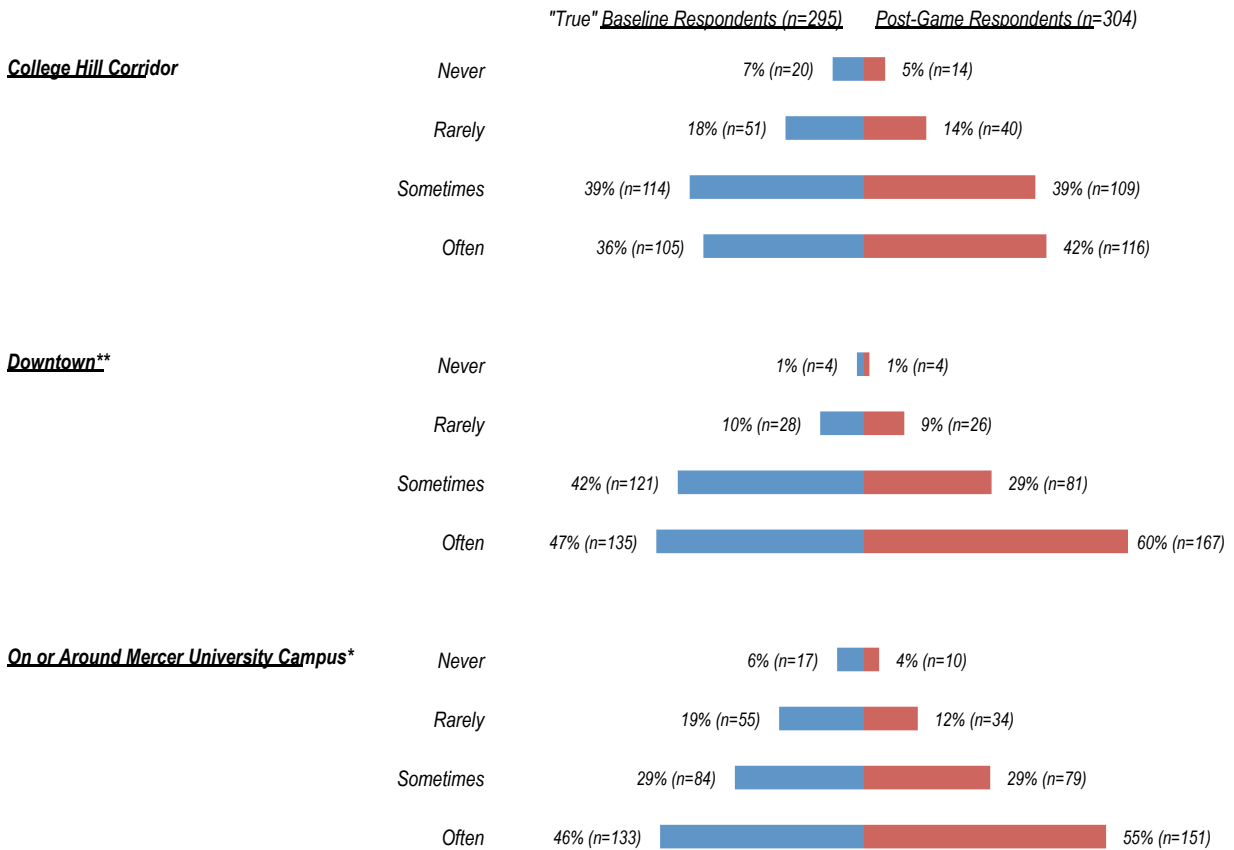
- I met a lady who was so nice and we’re Facebook friends now. She’s an African American woman and totally opposite side of town, never in a million years would we have met. And we just had such a good time when we were there talking and filling out our forms and had our picture made. [It turned out] she went to my rival high school. So we laughed and talked about how it was when we were in high school ... and how times have changed. And what we do now and do you know this person and that person. Just one of those “It’s a small world and getting smaller.”*
- There was a forum where you could find your match. And so we met and we were just, you know you have a conversation. He said, “Oh yeah, I’m just opening some lofts. Tonight is my grand opening...at the corner of Poplar and Fifth Street.” And I said, “That’s right behind my building. I know that building.” So it was just neat. And it’s great because in my job sometimes we [meet] newcomers [to Macon]. And so we’ve actually referred some people to rent from him. So he’s gotten business. And I made a friend.*

3.7.3 Exposure to amenities in target areas

In addition to promoting interaction between members of the community who wouldn’t otherwise connect, Macon Money aimed to attract and expose residents to local businesses and other amenities in areas in around Mercer University, the College Hill Corridor and downtown.

In order to increase our confidence that any documented changes in players’ use of amenities could be attributed to the game, we included questions on both our baseline and follow up surveys about the frequency with which players visited shops, parks and other public spaces in these neighborhoods. Figure 6 below compares frequencies reported by all “true” baseline survey respondents with frequencies reported by respondents to our follow up survey. Results show a statistically significant increase in the frequency of visits that players report between baseline and follow up in areas where restaurants and cafes are most concentrated: the area on or around Mercer University Campus and downtown.

Figure 6.
Frequency of visits to Macon neighborhoods among "true" baseline (n=295) and post-game (n=304) respondents



** Statistically significant differences between "true" baseline and post-game responses (p<0.01).

* Statistically significant differences between "true" baseline and post-game responses (p<0.05).

These results are supported by changes reported directly by players in the post-game survey and in interviews. Roughly a third of follow up survey respondents said that they visited at least one of these areas more frequently since playing the game. Several interviewees said that the biggest change for them was visiting Macon's downtown area.

3.7.4 Player Outcomes and Demographic Status

Our analysis of survey results shows that some outcomes vary based on player demographic status. As reported earlier, younger players, including Mercer students, were least likely to list "meeting somebody new" as a one of the things they liked most about the game. Africans Americans were more likely to report that they thought the game was a hoax initially. Older players used Facebook less.

Nevertheless, across a range of measures, demographic status is *not* a good predictor of player experiences. Instances in which results hold true for all players, independent of age, gender, income, race/ethnicity, Mercer student or no, and length of tenure in Macon include the following:

- Proportion of players who did not know their match(es) before playing the game;
- Proportion of players who met with all their matches to collect a bill;
- Total winnings from the game;
- Proportion of players who spent a bill on or with someone else;
- Likelihood of returning to the same business as a consequence of player experience during the game;
- Proportion of players who recommended the game to other people.

3.8 Player perspectives on Macon Money game repetition/replication

Most players we spoke to hoped that the game would be played again. Many said that the game ended too soon, before they had a chance to play as often as they would like. One player noted that the game launched long before it actually caught on. She observed that, in Macon, and in the deep South generally, “people have a hard time with new things.” But “once the newness wore off,” more people became involved.

Many players had suggestions about how to get the word out faster through trusted organizations like churches and other non-profits. “Not knowing about the game” was cited as a common impediment by players, including several who described themselves as more introverted or less social. In the words of one young woman,

Even though I’m not good at small talk and it takes me a while to get to know someone, I do love meeting new people. So it was fun to have to try to meet people that I didn’t know. I wish that I had really known about it sooner so I could have played more.

Most players had ideas about other businesses they would like to see participate. Grocery stores were high on many people’s lists but Ms. McKinley confirmed that none in the target area is independently owned. Several players said they “loaned” their address to friends and relatives who live outside the targeted zip codes and hope that next time more zip codes in Macon will be included.

A very small proportion of respondents to our survey (6.3%) and only one player we interviewed wanted bonds to be replaced by coupons so they could avoid the match-ups altogether. Several interviewees said they would have liked more of a challenge and would be willing to spend more time with their matches if this were part of the game.

I feel like it was almost too easy at times. And it was funny the first time because I was just really excited about, “No, I’m not going to match with you. I’m trying to find somebody I’ve never matched before.” And I was just very starry-eyed about who my match would be. And I think I met maybe two people who I’d never met before.... They wanted their money and then they were gone.

4 Evaluation Results: Findings Relevant to Participating Businesses

Evaluation findings summarized below are based on the following sources:

- Pre- and post-game interviews with:
 - Knight Foundation Program Director Beverly Blake
 - College Hill Alliance lead staff members Jessica Walden (pre-game) and Nadia Osman (post-game)
 - Area Code's local project manager Mechel McKinley
- A post-game focus group interview with the owners of 5 participating businesses¹¹
- In-depth interviews with each of these 5 owners
- Results of an online survey distributed to all participating Macon Money businesses¹²
- Area/Code documents and bill tracking data
- Analysis of Macon Money Facebook traffic

4.1 Eligibility and participation

All independently owned businesses in the game's target areas were qualified to participate in the game. According to Ms. McKinley, more than 200 businesses were theoretically eligible but only a subset was actually suited to the game. She confirmed that restaurants and cafes were good candidates as well as some retail establishments (e.g., bicycle shops, bookstores, clothing boutiques) but not professional offices (e.g., doctors' offices). This is because, as these business owners themselves observed, the price point for most of their professional services was well beyond the anticipated winnings of any Macon Money player.

Even among businesses that were well-suited to the game, uptake was slow at first. In the fall of 2010, Ms. McKinley began approaching local business owners to explain the conditions and benefits of participating in Macon Money. By the end of November only 24 businesses had signed on. The length and complexity of the contract that businesses were required to sign was an initial deterrent. But this appears to have been less of an impediment than a proposed reimbursement schedule of every 3 months. Business owners we heard from confirmed that, for small businesses, monthly exchanges of Macon Money bills for cash was best. Once this change was made, more businesses were willing to sign on.

Most owners/managers we heard from said that their principal motive for joining the game was to promote their business more widely. Some also expected to increase their revenues through sales to Macon Money players. Several owners/managers we interviewed said that they promoted the game to other businesses in their area once they realized that the game would be a success:

H: There are a couple of restaurants downtown that I kept going to because I know the owners. Going, "Really. You need to look at this."

¹¹ It proved more challenging than anticipated to recruit business owners to participate in interviews despite the evaluation team's flexibility with regard to timing and location. In the end, these 5 business owners were invited by Ms. McKinley to represent a range of experiences in the game. Some respondents had many players visit their establishments, others did not.

¹² Response rates to the online survey were low (20%). With a total of 8 respondents, results are mainly useful in adding the perspectives of another 3 business owners (the 5 business owners whom we interviewed also responded to our survey).

C: Yeah, the guy that owned the Hummingbird is a good friend of mine and I used to tell him, “I could be spending this \$10 here but I’m at the Rookery getting a pitcher of beer. So it’s up to you!”

F: [In Mercer Village], we all went down to talk to [business owner] and said, “You have got to do this. And if you don’t, you’ll hit yourself in the head with a hammer.” And they did and after the first time they did it, they said, “I am in love!” Everybody at Mercer Village took advantage of it and they loved it.

All owners/managers we interviewed praised Ms. McKinley highly for her persistence in explaining the game and encouraging businesses that were already signed up to spread the word. Area/Code data show that the greatest monthly increases in the number of participating businesses occurred in January after the number of players began rising and later in the game when businesses could see results.

In all, forty businesses in Macon Money target areas signed on to participate in the game (see Appendix 2 for a list of businesses).

4.2 Business experiences in the game

All respondents to our survey and business owners/managers whom we interviewed told us that they hoped that the game would be played again, even those whose businesses attracted few players.

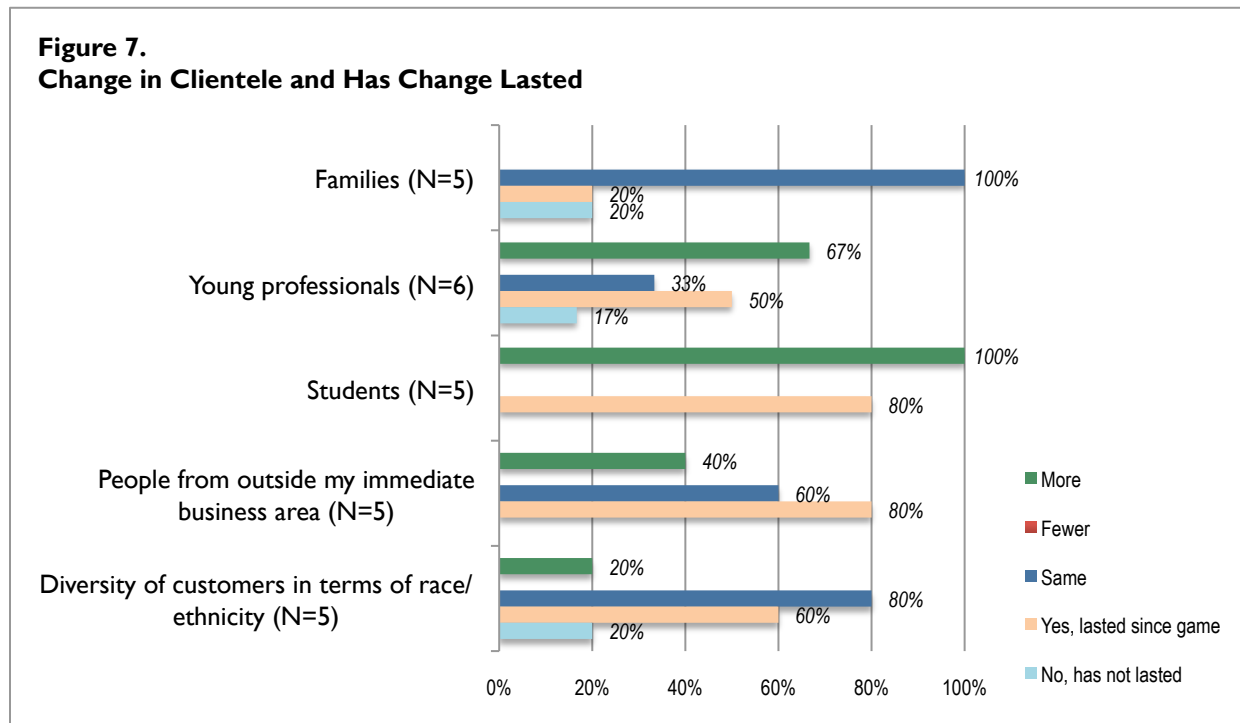
Francar’s Wings is an example of a restaurant business that did very well in the game. The owner had recently moved his restaurant to Mercer Village to attract new clients, especially Mercer students and more families in the College Hill Corridor. Francar’s was thriving in its new location prior to Macon Money but the game attracted an influx of new students. The owner reported that he was able to pay off a business loan with his earnings which totaled \$13,000 between November 2010 and May 2011.

Envie, a new clothing and jewelry boutique, and the more established Cherry Blossom Festival gift shop are examples of businesses that did not attract large numbers of players. Both owners/managers observed, however, that foot traffic created by the game will likely benefit many businesses in the downtown area, if it is sustained. The Cherry Blossom manager was most encouraged by the different mix of customers that came to downtown, including many Mercer students. Envie’s owner reported that the new customers she did see were mostly young women who shopped with their friends. Sometimes it was the friend of a player rather than the player herself who made a purchase. She feels that the game increased her customer base at a crucial time and recommended the game be played again to support new business growth.

We conducted our post-game research with businesses 4 months after the close of the game in order to get an early assessment of the game’s longer term effects. Nearly half of the *players* who responded to our survey said that they spent at least one bill at a local business that was new to them and, of these, 92% reported that they had returned to a business that was new to them since spending their bill.

Figure 7 below summarizes the responses of 6 participating businesses to the survey question: *In what ways did your clientele change [during the Macon Money game]? And has that lasted since the game ended?* Notably, the largest sustained change reported by these businesses is in the number of students who frequent their business and in the number of people from outside their business district. These results are directly in line with the game’s desired outcomes.

Figure 7.
Change in Clientele and Has Change Lasted



4.3 Summary of business earnings from the game

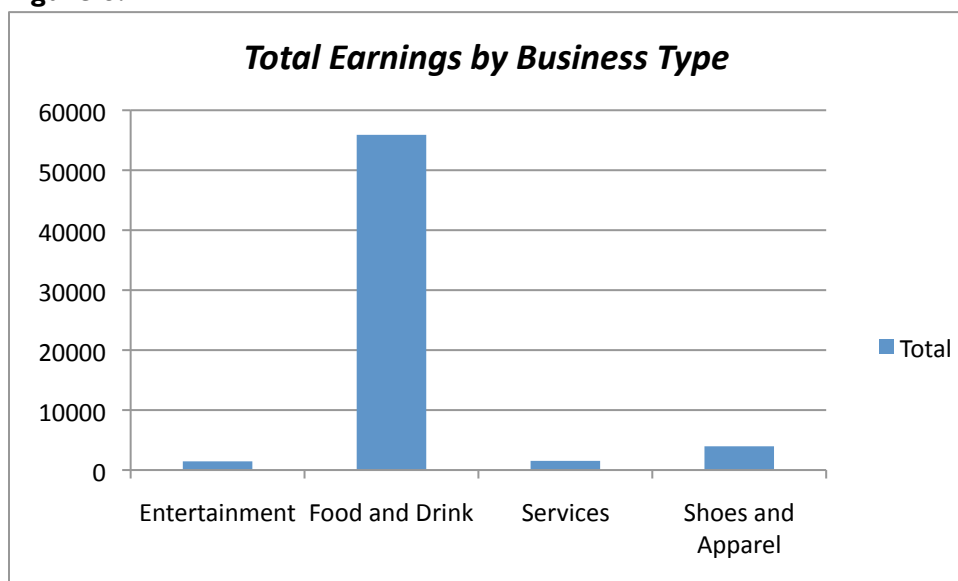
- **Local business earnings from the game totaled over \$60,000**

The distribution of earnings by business type is summarized in Table I and Figure 8 below.

Table I.

Type of Business	Sum of Total Earnings
Entertainment	1450
Food and Drink	55900
Services	1530
Shoes and Apparel	3690
Total	\$62,840

Figure 8.



- **Earnings were unequally distributed across businesses**

Twenty percent of participating businesses earned less than \$200 from the game; more than 50% of participating businesses earned less than \$1,000 from the game. The largest amount earned by any business was \$13,000 (see Appendix 3).

4.4 Business strategies

Strategies that businesses used to promote their business in the game included hosting a Macon Money event, posting messages on the Macon Money Facebook page and, to a lesser extent, incorporating details about the game in their own promotional materials (e.g., their business website, Facebook page).

Area/Code records show that 8 businesses hosted at least one Macon Money event. All the owners/managers we interviewed said they thought this was an excellent way of attracting attention to a business and building a customer base. Since bonds were distributed and matches redeemed for bills at these events, hosting an event might also result in some immediate sales. Several businesses hosted events more than once. The manager of Joshua’s Cup said he tried to host at least once a week, “just to get known as one of the spots that does that.”

All participating businesses were listed on the Macon Money website and Facebook page so that players knew where they could spend their bills. Some businesses also posted comments and invitations to players on Facebook. Envie’s owner admitted that she was surprised by the numbers of students who used Facebook in the game. Since students are one of her target demographics, she has decided to update her own business’s Facebook page and concentrate more on social media in future.

4.5 Business perspectives on Macon Money game repetition/replication

As noted earlier, all the business owners and managers we surveyed or interviewed said they hope that the game will be played again in Macon. Most said that they would be prepared to invest in the game

either by providing an additional discount to players or by paying a “Macon Money tax” on the total value of the bills spent by players at their establishments.

Business owner/manager suggestions for the game if it were to be played again included the following:

- Expand player base by expanding to other zip codes;
- Distribute bonds at businesses that are large employers like Geico and Armstrong;
- Transfer funds to businesses electronically;
- Get the City involved in promoting the game;
- Provide incentives for businesses to sign up early. For example, no fee if you sign up in the first 30 days. Increase fee to 25% after 60 days.

5 Evaluation Results: Findings Relevant to Macon and its Future

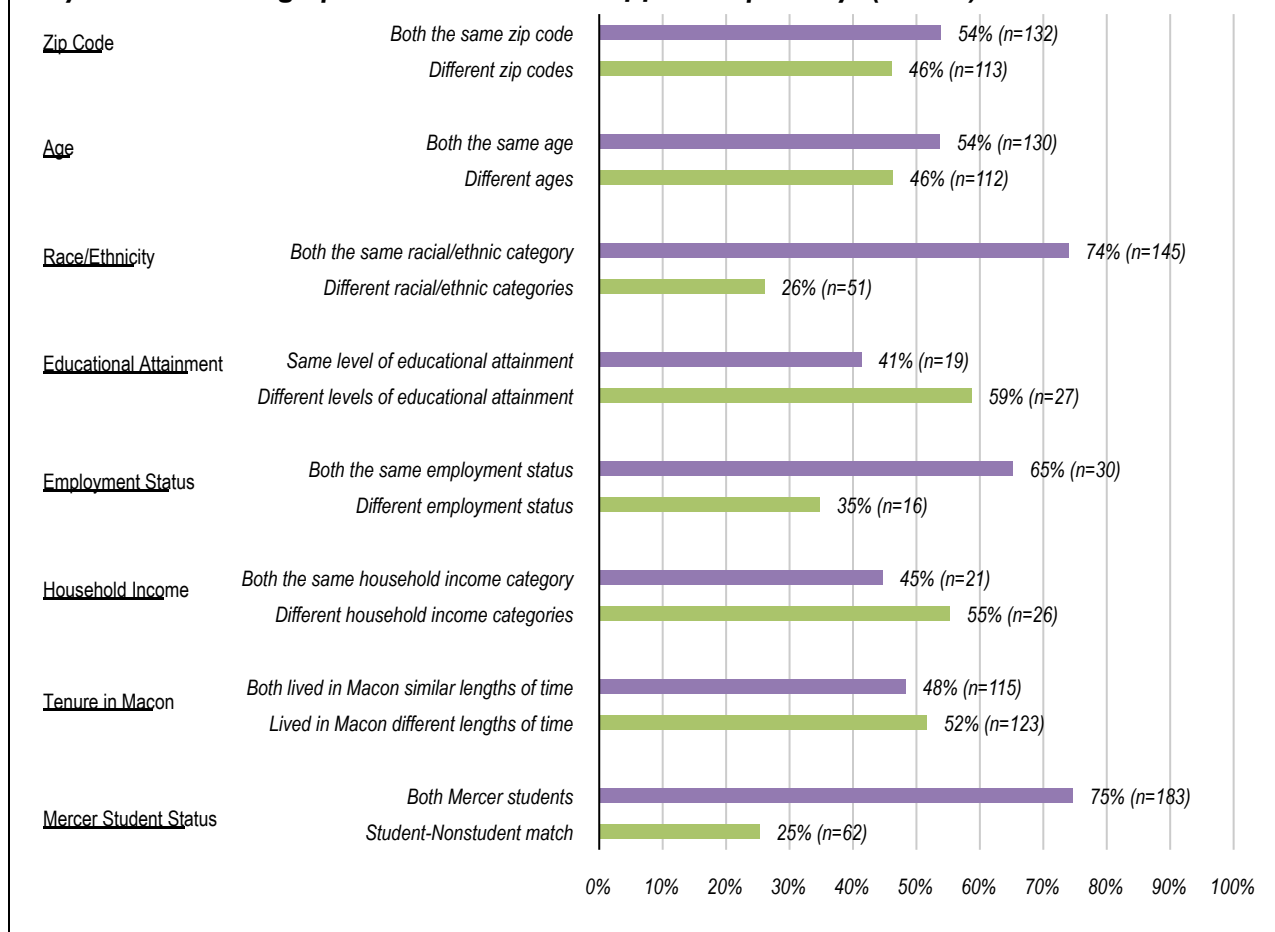
5.1 Evidence that Macon Money encouraged social contact between people who might not otherwise meet.

We have two sets of evidence that Macon Money encouraged social contact between people who might not otherwise meet. The first is based on players’ recollections and assessments. As we reported in Section 3, this includes survey data indicating that a large proportion of players’ matches were with people whom they didn’t previously know and whom they would not be likely to meet, were it not for the game. Two of three matches reported by respondents were with people previously unknown to them (66%) and, of these, more than three quarters were with people whom they were unlikely to meet, in their estimation (76%).

We also have independent evidence of demographic differences between matches. This is not strictly a measure of how likely it is for people to meet but addresses social characteristics that sometimes separate people. Results below were produced by linking post-game player survey data with bond-tracking data from Area/Code, using players’ names and e-mail addresses.¹³ In this way, we were able to identify bond sets (i.e., player and match) with demographic information about players and their matches. We identified 290 bond sets in all.

¹³ For each person in the survey data, the bond-tracking data listed the names of up to 15 matches made during the game. Where possible, demographic data for all of a player’s matches were attached to their record in the survey data set.

Figure 9.
Player-Match demographics based on results of follow up surveys (n= 757)



These results suggest that Macon Money was highly successful in bringing different kinds of people together, including people of different ages (46% of matches), levels of educational achievement (59%), length of tenure in Macon (52%), from different zip codes (46%) and, to a lesser extent, people of different employment status (35%) and race/ethnicity (26%). Since there is considerable evidence that African Americans and people of other races were outnumbered by white players (by more than two to one in our survey data), it is not surprising that a smaller proportion of matches mixed race/ethnicity. Other things being equal, we might expect more matches between Mercer students and non-students since numbers of players were roughly equal on both sides, based on our survey results. We know that many students played in groups, however. These players deliberately sought matches with other students.

5.2 Evidence that the game created enduring relationships across social divides

The game’s main purpose was not to catalyze lasting relationships but to have large numbers of Macon residents bump into each other in novel combinations. The element of randomness itself worked against the likelihood that players would meet matches who were like them (in terms of age, gender, occupation, etc.). Differences can be stimulating but they are not a common basis for building lasting

social connections.¹⁴ We believe this largely explains the relatively small proportion of matches that resulted in further contact between players once their matching bonds were redeemed (based on our survey, 84% no further contact offline post-match, 85% no further contact online post-match).

We note, however, that these results are a snapshot of relationships reported by players three months after the game ended. It is certainly possible that friends on Facebook have become friends of friends or that new contact between players has kindled relationships, since that time.

5.3 Evidence that the game contributed to greater sense of connectedness among Maconites

This is a different kind of outcome and one which we could not thoroughly address in the context of this evaluation. We note, however, that the ability to recognize another player who matched in the game, without having established a lasting relationship with them, is also of social consequence. Familiar faces in our environment contribute to a sense of place and belonging, and the more so as the number of familiar faces increase.¹⁵

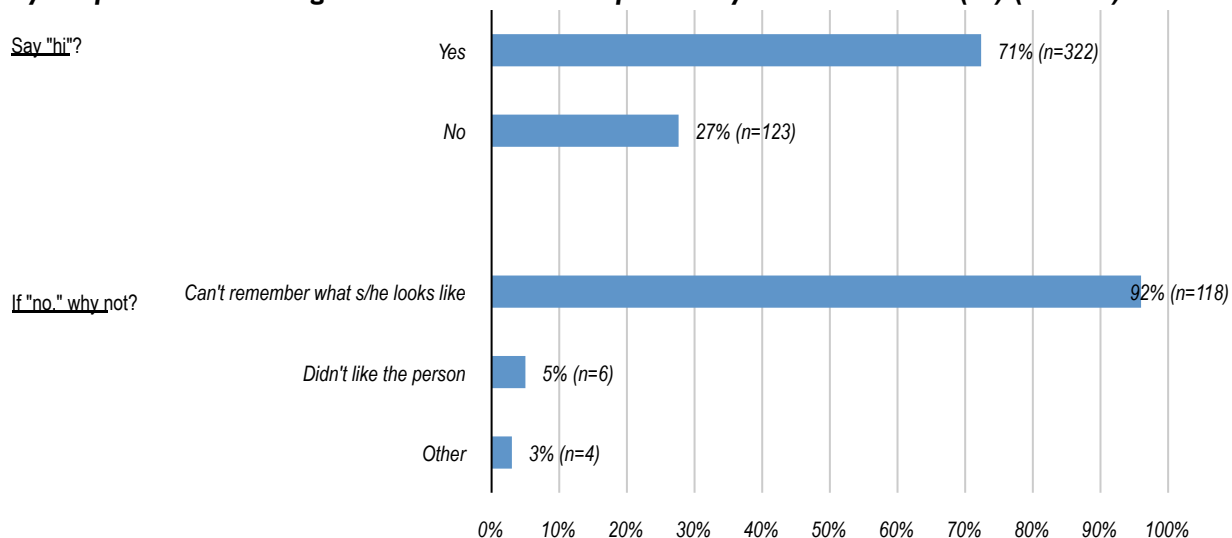
Two sets of findings from our research are relevant to an understanding of this dimension of Macon Money. The first relates to the proportion of matches that post-game survey respondents said they would recognize if they saw their match(es) again. Here we confirmed that, whereas less than 20% of matches reported by respondents led to further social engagement, over 70% of matches reported by respondents were with people whom players said they would recognize and would say “hi” to if they saw them again, on the street or in the supermarket.

¹⁴ In social network analysis, this principle is called “homophily” – based on the observed tendency for “like to attract like” in natural social networks.

¹⁵ Several studies of social capital use number of neighbors who are “known by sight” as a measure of local trust. This builds on Putnam’s “trust of strangers” as a central dimension of social capital. For example, <http://www.nice.org.uk/nicemedia/documents/peoplesperceptions.pdf>

Figure 10.

Players' potential to recognize and interact with previously unknown match(es) (n= 455)



As described below, the second set of findings of relevance to levels of social connectedness in Macon relates to the proportion of players who were attracted and exposed to neighborhoods in Macon that were targeted in the game.

5.4 Evidence that Macon Money encouraged Macon residents to visit shops, parks, and other public spaces in the CHC, on or around Mercer University or downtown.

In describing player-level outcomes, we have already presented strong evidence that Macon Money residents were encouraged to visit the game’s targeted areas and that they also changed some of their earlier behaviors. In our comparison of baseline and follow up survey responses, we found a statistically significant increase in the frequency of visits that players reported post-game, especially in areas where restaurants and cafes are most concentrated.

We also have “self-report” data to confirm this. In answer to a question in our post-game survey about frequency of visits since playing the game:

- 32% of respondents reported that they visit the CHC more frequently since playing the game;
- 30% of respondents reported that they visit the area on or around Mercer University more frequently since playing the game;
- 29% of respondents reported that they visit Macon’s downtown area more frequently since playing the game.

Such changes in behavior, if they persist, will continue to bring residents from different areas and backgrounds into the center of Macon, with potentially positive social outcomes (e.g., more familiar faces), just as it will continue to expose and attract clients to local independently–owned businesses in the targeted areas.

5.5 Evidence that Macon Money improved residents' perceptions of the CHC, the area on or around Mercer University and downtown

Macon is... I don't want to say segregated, it's not the right word, but separated. I mean you have the North Macon group, you have the South Macon group and you have the downtown Macon group. And usually they don't mix. And that's one of the big problems we're having in Mercer Village is to get people from outside of Mercer Village to come here. So one of the things that Macon Money did was it encouraged them to come down and at least SEE Mercer Village. And once they came down, I think most of them were happy because ... I mean it's nice here. And it gave people a reason to come back.

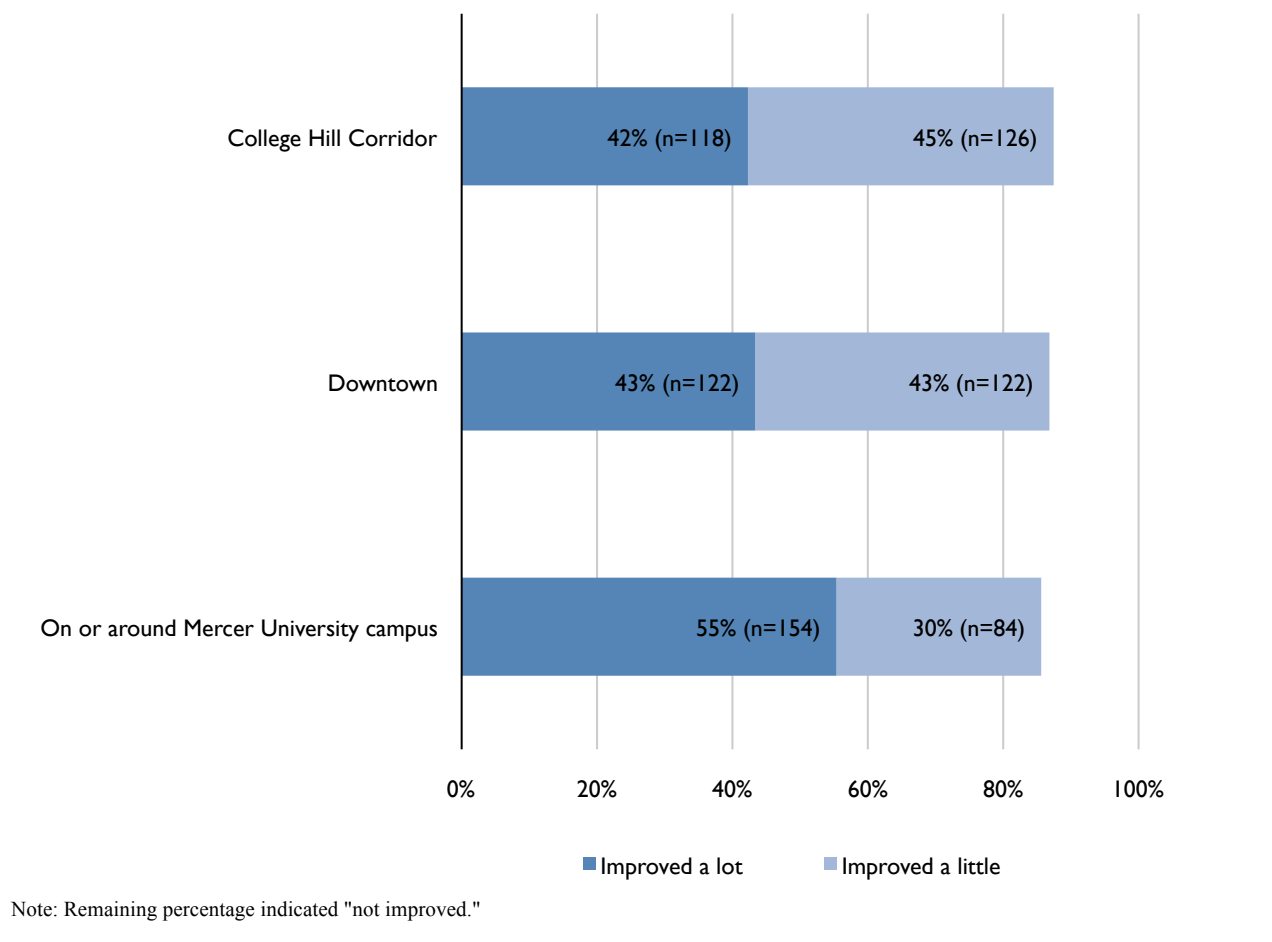
Mercer Village Merchant

Macon Money also aimed to contribute to larger efforts led by the CHA and others to improve residents' perceptions of neighborhoods in Macon that had been in decline but are now being revitalized.

In our post-game survey, we asked players whether their perception of the shops, parks, and other public spaces in these neighborhoods had improved since playing the game: the CHC, downtown, and the area on or around Mercer University campus (e.g., Mercer Village). Results described in Figure 11 show that the perception of these areas by large proportions of players improved.

- A total of 87% of respondents reported that their perception of the CHC had improved since playing the game;
- 86% of respondents reported that their perception of downtown improved since playing the game;
- 85% of respondents reported that their perception of the area on or around Mercer University improved since playing the game.

Figure 11.
Player Perceptions of Macon Neighborhoods Since Playing the Game (N=281)



We also sought further evidence that playing the game affected resident perceptions by comparing the perceptions of players by “times played” - once, twice, three times, and so on. Our analysis of these survey results shows a positive correlation between the number of times a resident played the game and her/his perception of one area in particular: downtown. This is an encouraging result since Macon’s downtown area has been widely perceived as neglected and unsafe. Our qualitative research suggests that players who visited downtown as a consequence of the game perceive the area to be safer than they did before playing the game.

5.6 Evidence that Macon Money promoted a sense of excitement about Macon/ promoted optimism about Macon’s future.

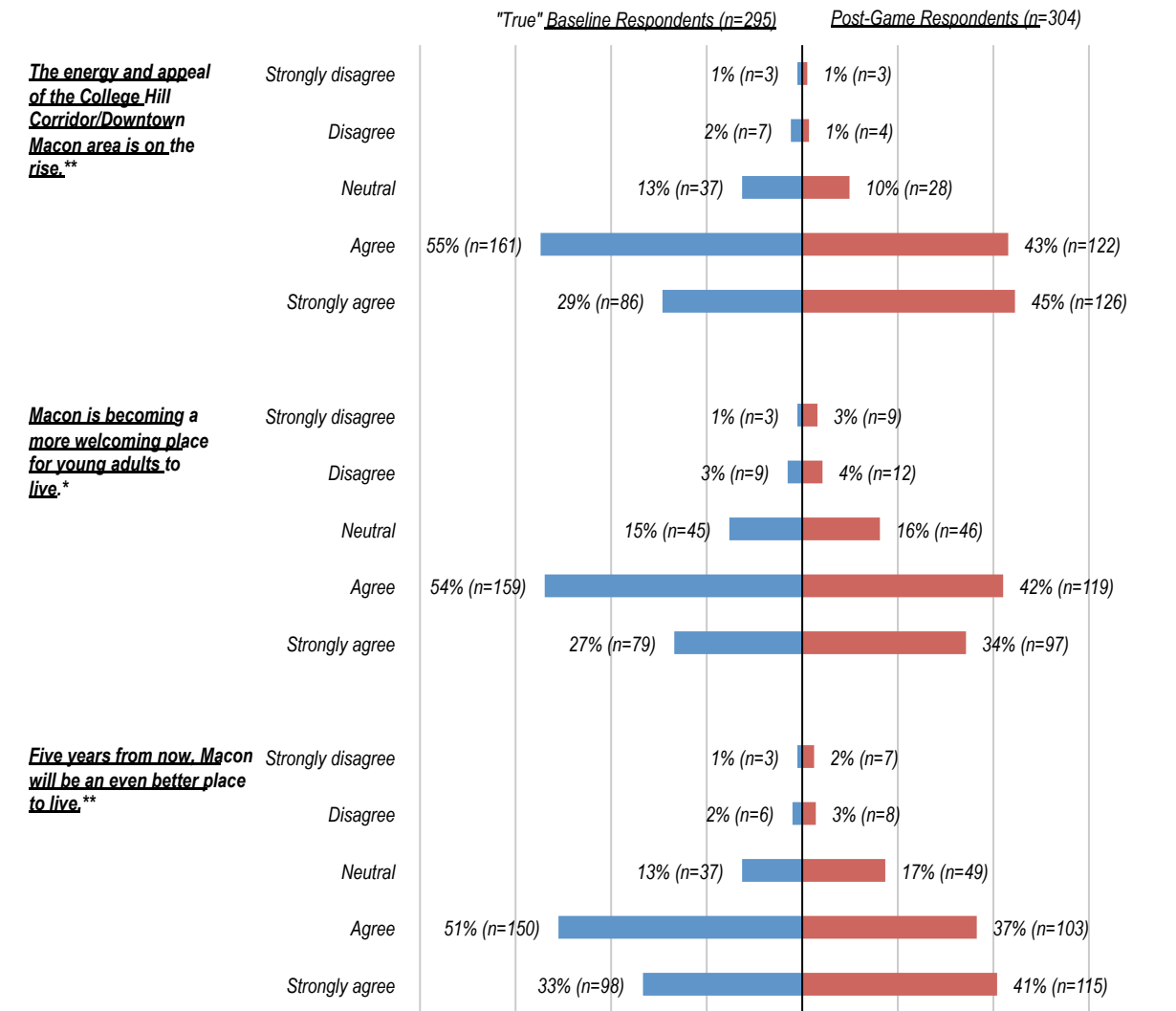
Residents’ attitudes toward Macon are important in light of Soul of the Community findings that place attachment – associated with pride in community and a positive outlook on the future - correlate with local GDP growth.

In order to document the impact of the Macon Money game on residents' assessment and expectations of their city, we included a question on our baseline and follow up surveys asking players about their agreement/disagreement with the following statements:

- The energy and appeal of the College Hill Corridor/Downtown Macon area is on the rise.
- Macon is becoming a more welcoming place for young adults to live (e.g., students, professionals, entrepreneurs).
- Five years from now, Macon will be an even better place to live.

Figure 12 below compares frequencies reported by all “true” baseline survey respondents with frequencies reported by respondents to our follow up survey. Results show a statistically significant increase in residents' agreement across all statements. Our analysis of survey results also showed a positive correlation between the number of times a resident played the game and her/his perception about the future of Macon across all statements. This is evidence that players' evaluation of Macon as an exciting and attractive place to live improved as a consequence of their participation in the game.

Figure 12.
Perceptions of the future of Macon among "true" baseline (n=295) and post-game (n=304) respondents



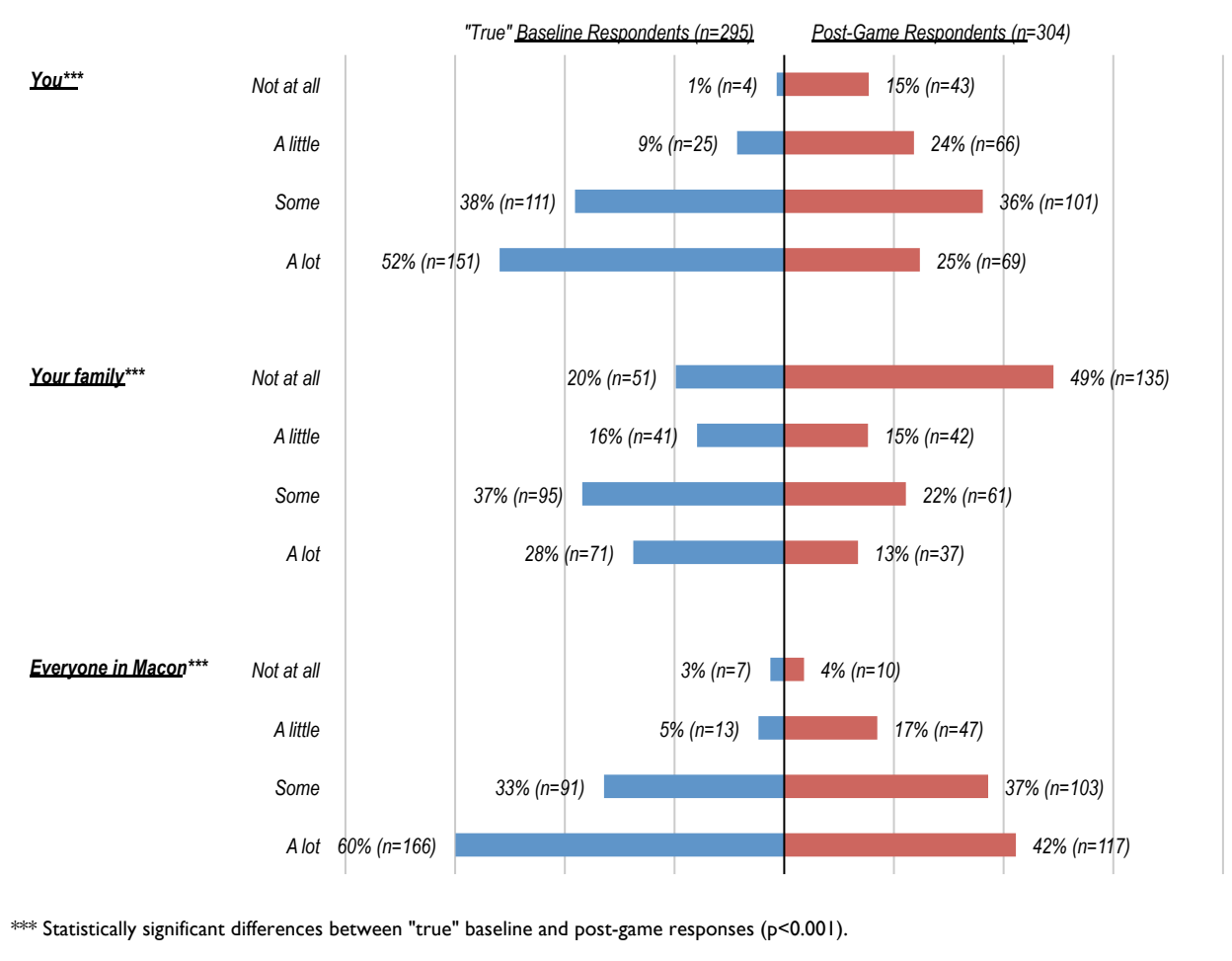
** Statistically significant differences between "true" baseline and post-game responses (p<0.01).

* Statistically significant differences between "true" baseline and post-game responses (p<0.05).

5.7 Players' perceptions of the benefit of meeting new people

We also included a question on our baseline and follow up surveys asking residents how much they thought a game that encouraged Maconites to meet “people they might not otherwise meet” would benefit: a) themselves b) their family c) their community. Notably, results show a negative correlation between playing the game and all of these perceived benefits. Since the follow up survey was administered three months after the last bond was redeemed, we believe this is an indication that players were excited about the game’s potential benefits early in the game and assessed benefits more conservatively once they took stock after the game. We include this result in part to show that, while many players’ clearly enjoyed the game, including the opportunity to meet other people, the larger and longer term benefits are not as apparent to them.

Figure 13.
Estimated benefit of the game among "true" baseline (n=295) and post-game (n=304) respondents



5.8 Evidence that Macon Money will have an impact on local business prospects

Although the immediate impact of short-term earnings may have changed some business's prospects (e.g. paying off a loan), the lasting effect of Macon Money will likely be to continue to attract customers to the targeted areas of Macon where independently-owned businesses are located and to some of the businesses that participated.

6 Role of Community Partners

Our assessment of the role of community partners is based on perspectives shared in one-on-one interviews with Kati London, Knight Foundation Program Officer Beverly Blake who is headquartered in Macon and with lead staff at the College Hill Alliance (CHA). Funded by a three year grant from the Knight Foundation, the CHA administers the implementation of a master plan designed to increase numbers of residents and job opportunities and improve the quality of life in the College Hill Corridor (CHC). Volunteers and key stakeholders on the College Hill Commission act as advisors to both the CHA and the Knight Neighborhood Challenge. The Knight Neighborhood Challenge supports related efforts to revitalize the CHC.

The CHC along with Mercer University and downtown were the three areas targeted in Macon Money.

6.1 Early consultations

According to Kati London, consultations with Beverly Blake and staff at the CHA were helpful to Area/Code in both research and game development phases. Beverly Blake played a critical role in reaching out to key stakeholders in Macon to get buy-in for an innovative “real life” game. Conversations with Ms. Blake and CHA staff, as well as with community leaders they indicated, also helped Area/Code tap into local knowledge about Macon's history and potential. This attention to context is reflected in many of the game's details, including the design of the bond itself.

6.2 Synergy with Partner initiatives

Macon Money was also designed to contribute to existing re-vitalization initiatives funded by the Knight Foundation and supported by the CHA. One of the ways this was manifest was in combined events. For example, the Macon Money “mobile unit” distributed and redeemed bonds at regularly-scheduled events organized by the CHA such as Second Sunday in the Park and Third Thursday in Mercer Village. CHA Program Coordinator Nadia Osman confirmed that Macon Money increased attendance at Third Thursday which was their newest event. She reported that the game didn't increase attendance at Second Sunday because it was already established when the game began, but it did provide a large and ready audience for Macon Money and, when the game caught on, this led to more social interactions between visitors as players sought matches for their bonds.

During the period of game implementation, the CHA promoted Macon Money on its website and its staff continued to be resource for Ms. McKinley, the game's local project manager. Director of Communications Jessica Walden observed that the two were most aligned around the promotion of events that attracted many different kinds of people.

Obviously we're the south, we've had a racial divide and whether we want to admit it or not. And ...our biggest enemy in that has been the poverty in Macon. So the great thing about the Corridor [is that] we

have a very, very diverse community in this two-mile area. Is this possibly the initiative that is going to make everybody feel like they are part of it?

Ms. Walden also noted that, since the CHA program “Shop Local Macon” does not promote the same businesses, efforts on the business side were not as perfectly aligned.

6.3 Community partner perspectives on Macon Money game repetition/replication

CHA staff suggestions for the game if it were to be played again include the following:

- Restricting zip codes makes sense in order to reach target populations, but some resentment was created in other parts of the community. Organizers should be prepared to address this or continue to overlook players who “fudge” their zip codes;
- Attract and include more downtown businesses;
- Make the game more convenient for working people by holding MM events and business hours before or after the regular working day;
- Engage Black churches in Macon to encourage more African Americans to play the game;
- Experiment with game rules that would encourage matches to get to know each other a little more.

The CHA’s current grant ends in May 2012 so staff were uncertain about their role in supporting the game if it were to be played again.

7 Reflections and Recommendations

I think the whole “meeting people that you wouldn’t have met” before is good for Macon as a whole. ... And I think being a part of something like that and knowing that you’re... helping revitalize a part of Macon that has kind of been low or kind of dead for several years. I think it’s easy if you live away from the city, like if you live in South Macon or North Macon or whatever, to kind of stick in your own little bubble [and]... to not really get involved and not really pay attention. But if you start to realize, “Hey these people are doing this thing down here and it seems like a good thing, it seems important.” I think it kind of opens your eyes. I think sometimes the little things like that open your eyes to the bigger things that are going on, if that makes sense.

Macon Money player

7.1 Key Macon Money Successes

1. Engaged residents

- More than 3,500 residents of Macon played the game and over 1,200 players made at least one match.
- The game recruited players from all three zip codes and reached key target groups.

2. Appealed to residents

- There was a lot to like about the game. “Free money” and the “opportunity to support local business” were rated most highly by the greatest share of survey respondents.

3. Created new connections

- The game resulted in social contact between people who might not otherwise meet.

- Although the proportions are small, the game also gave rise to enduring social ties, including ties between people of different backgrounds, based on survey results.

4. Attracted and exposed residents to target areas

- The game attracted and exposed residents to amenities in the CHC, on or around Mercer University and downtown.
- Residents perceptions of these area improved, as a consequence of the game.

5. Contributed to place attachment

- The game created a sense of excitement about Macon and increased optimism about Macon's future.

6. Economic impact

- Local business earnings from the game totaled over \$60,000
- There is early evidence that some residents will continue to return to businesses they visited during the game.

7.2 Game Implementation Strengths

- **Lift off:** The game was slow to catch on but, once a critical mass was reached, the number of first time players rose dramatically.
- **Making it easy to start:** The Macon Money project manager seeded the process by distributing large numbers of matching bonds at some early Macon Money events.
- **Online and off line elements:** While in-person word of mouth helped residents overcome their initial hesitancy, the Macon Money forum and Facebook page played an important role in many players' continuing engagement and success.
- **Safety:** This is a game that asks players to meet in person with complete strangers in order to win. MM HQ and MM events were safe places for players to meet and redeem bonds.
- **Synergy:** MM built on existing revitalization efforts. By piggybacking on CHA events, MM reached more prospective players. In turn, Macon Money boosted participation at some CHA events (e.g., Third Thursday in Mercer Village) and promoted more social mixing at highly attended events (e.g., Second Sunday in Washington Park).

7.3 Game Implementation Challenges

- **It took time (3-4 months) for the game to gain momentum.** Many people had difficulty understanding what the game was about based on the website description and project manager's explanations.
- **Business recruitment was also slow and only 40 qualifying businesses signed up.**
- **Spending by players was concentrated on a handful of Macon businesses, mainly restaurants.** Twenty percent of participating businesses earned less than \$200 from the game; more than 50% of participating businesses earned less than \$1,000 from the game.
- **African American players were under-represented in the game.** Efforts by Area/Code to boost participation among African Americans and residents with lower incomes were largely unsuccessful. Distribution of bonds by direct mail to these groups did not result in substantially higher rates of participation.

- **Media outreach through local radio and TV had little effect on participation, either by players or by businesses.** Local project manager McKinley reported that more effort should have been devoted to media outreach in the early weeks of the game to explain what it was about (i.e., not a hoax, not new-fangled coupons).
- **Limited hours of operation made it difficult for some players to redeem matched bonds.**

7.4 Recommendations

- **Critical mass:** According to project manager McKinley, once a core group of 30-40 players became devotees of the game and spread the word through their social networks, interest in the game increased significantly. Targeting outreach initially to sub-groups who are highly networked may reduce the overall time required to implement the game effectively. Depending on the context, this might include younger people with access to the internet, members of clubs like the BGC and YMCA, and local churches.

Since it is difficult to describe what the game is about and overcome popular skepticism through simple written descriptions, direct mail is not recommended as a means of engaging new players.

- **Boosting participation by under-represented groups in Macon (African Americans, older Maconites, families, people with lower incomes).** In Macon (the city with more churches per capita than anywhere else in the South), churches are natural sites for promoting the game to a wider group of residents. If the game were to be played again, engaging leaders in the Black community (religious and secular) is recommended.

Game events and staffing should also be scheduled to accommodate a range of player work schedules.

- **Diverse value propositions:** Our research suggests that most players were attracted by the offer of “free money,” but this was by no means the only motivation for playing. Some players saw this as an opportunity to meet and make friends with other people in their community. Some wanted to support local businesses. Some came to the conclusion after playing a few times that the game was good for Macon, because it enlivened public spaces and brought people together in new ways. That motivated them to spread the word. Some just loved a challenge and enjoyed the chase.

Recommendations from players about how to improve the game reflect these perspectives (more money, more businesses, more challenges, more zip codes involved). If the game were to be repeated, our recommendation is that game rules be adjusted to acknowledge and leverage some of this diversity (see below, More variation and Right-sizing).

- **More variation:** Our research suggests that providing incentives for different kinds or levels of play will satisfy players with different or evolving interests. Incentives could be designed to both satisfy player interests and promote the games' desired outcomes. Possible modifications:
 - Incentivize greater social interaction between matched players by matching reward with "level of difficulty": e.g., value of bills you can win or the number of times you can play increases with your ability to accurately answer a short list of questions about your current match (e.g., where they live, how long they have lived in Macon, what they like most about Macon). Answer could be posted on game website.
 - A scavenger hunt that takes you to 2-3 participating businesses before you can spend your bill (at any participating business you want). Visiting more businesses incrementally increases value of the bill.
- **Right-sizing:** We believe that the game is best suited to small cities or neighborhoods in large cities. The City of Boston may be interested in exploring a version of the game to be played in one of the city's neighborhoods.
- **Right-timing:** That the game brought something new and different to Macon was part of its appeal. This suggests that the game should be played intermittently not continuously.

A limited period to play the game concentrated player activity and contributed to a general sense of urgency and excitement. Macon Money was implemented over 8 months, but started slowly. The optimum period may be closer to 4-6 months.

- **Mobilize local business owners to invest in the game.** Now that more business owners in Macon understand how the game is played and have seen how Macon Money can benefit them, it will be easier to get business buy-in.

The game's record in Macon may positively influence buy-in by business owners in other prospective sites.

- **Address business concerns:** Macon businesses which did not do well in the game will care about strategies to ensure that bills are spent more equitably within the local business community.
- **Data gathering and management:** Explore direct electronic means of tracking bonds, bills and players. Most Macon Money data collection and data entry was done by hand. This was time consuming for local project staff and resulted in errors in the final dataset.

Assign a unique identifier to each player. Local project staff had the means to track bonds and bills but not players. Among other things, this meant that game organizers and evaluators had no way of determining which players spent bills at what businesses and in what denominations/amounts.

- **Recommendations related to social media**

- In a second generation or iteration of the game, participating businesses could have more of a social media strategy and presence to promote their participation. Game data shows that social media was effectively used as one of a number of tools available to players to find a match, and the majority of posts to Facebook were players accessing the game's page (68.8%). There were far fewer posts promoting participating local businesses (14.37%). It may help businesses to have a more purposeful social media strategy to tap into the network of players on the game's Facebook page.
- If game organizers are interested in reaching people representing a greater range of ages and race/ethnicities, a wider spectrum of outreach mechanisms should be incorporated into game play. While Facebook was an effective way to reach a younger audience, game data shows that there was less participation among men, older residents, and residents of color. Game organizers might consider including other options to enhance game play, such as more options with mobile phones, as well as other more traditional outreach approaches, to broaden the spectrum of players.
- One reason to include a social media component in a game is to have a place to assemble a growing network of participants and communicate to that network. If the City of Macon and the College Hill Corridor Commission wanted to continue to grow a network of engaged residents through participation in the game, they might place greater emphasis on the use of social media to create communications pathways. By requiring players to use Facebook or a website forum to find a match, organizers would be better able to track the overall network of players and possibly engage them for other purposes, aside from game play itself.

APPENDIX I Methodological Notes

I. Principal Data Sources for the Evaluation

- **From Area/Code:**

In April 2011, Area/Code provided data obtained from players during bond distribution and redemption. A bond-tracking dataset contained a list of 5,021 bonds and specific details about distribution and redemption, including:

- Bond serial number
- Handout date and event
- Redemption date and event (where applicable)
- Redeemer's first and last name (where applicable)
- Redeemer's zip code (where applicable)
- Staff person(s) who distributed and redeemed the bond (where applicable)

Using a master list of matching bond serial numbers provided by Area/Code and the bond-tracking data, we created a dataset of bond sets (i.e., bonds matched and redeemed for a bill) and specific distribution and redemption characteristics of the bond sets. In order to examine player-level characteristics (e.g., number of bonds received/redeemed), redeemers' names were collapsed into a person-level dataset with all bond distribution and redemption data attached.

- **Original research:**

Baseline survey to MM players. In April 2011, questions were added to Area/Code Terms of Service (TOS) agreement (see Appendix I for full list of questions). Information collected at the point of bond distribution included:

- Registrant's first and last name
- Registrant's street address (online only)
- Registrant's zip code
- Registrant's email address
- How the registrant found out about the game (online only)
- Number of times registrant had previously received a bond
- Frequency that registrant visited specific areas of Macon
- Anticipated benefit of Macon Money game
- Attitudes about the future of Macon
- Demographic characteristics: age, race/ethnicity, tenure in Macon, and Mercer student status

In total, 563 players completed a baseline survey. Since this survey was launched several months after the game started, only some players who filled out the survey had never played the game before. We collected responses from 295 “true” baseline respondents (i.e., those who had

never played the game before completing a baseline survey). Survey responses were merged, where applicable, with bond-tracking data from Area/Code.

Follow up survey to MM players. In September 2011, an online survey link was distributed by email to 1,477 players (Survey protocol is attached separately). Information collected in this survey included:

- How the player found out about the game
- Strategies used to find a match
- Number of bonds received and matched
- Characteristics of the player's match(es)
- Where bills were redeemed
- Player's attitudes about businesses
- Social aspects of the game
- Attitudes about specific aspects of the game
- Frequency that player visited specific areas of Macon
- Benefit of Macon Money game
- Attitudes about the future of Macon
- Demographic characteristics on the baseline: age, race/ethnicity, tenure in Macon, and Mercer student status
- Demographic characteristics unique to the follow up: gender, place of residence, education, employment status, and household income

MM business survey. In September 2011, an online survey link was distributed by email to 40 businesses players (Survey protocol is attached separately). Information collected in this survey included:

- Why businesses decided to participate
- Factors that impeded participation
- Factors that facilitated participation
- Changes in clientele as a consequence of the game
- Strategies used to promote business in the game
- Factors that improved outcomes for businesses
- Willingness to invest in the game, if it is played again in Macon.

26 in-depth interviews with MM players

Pre- and post-game Interviews with:

- Beverly Blake
- Local project manager Mechel McKinley
- College Hill Alliance (CHA) staff: Nadia Osman and Jessica Walden
- Kati London

2. Survey Samples

In total, 304 players completed a follow up survey. These survey responses were merged, where applicable, with baseline survey data and bond-tracking data from Area/Code. This resulted in a dataset of 757 players who completed a baseline and/or follow up survey.

Matched-sample responses. For players who completed both the baseline and follow up surveys, we obtained a sample of 37 "true" baseline respondents who also completed a post-game survey. This sample size is too small (i.e., approximately one-tenth the size necessary) to draw conclusive statements about the influence of the game. Therefore, we used results from the full "true" baseline sample (n=295) and the full post-game sample (n=304) to draw conclusions about the influence of the game. Although these are not necessarily the same group of individuals, they do provide cohort-level information on changes between initial play and post-game outcomes.

Total Respondents to Baseline and Follow Up Surveys

Survey	N
Total respondents	757
Total baseline respondents	563
Total "true" baseline respondents	295
Total follow up respondents	304
Respondents who completed both baseline and follow up surveys	110
"True" baseline respondents who completed a follow up survey	37

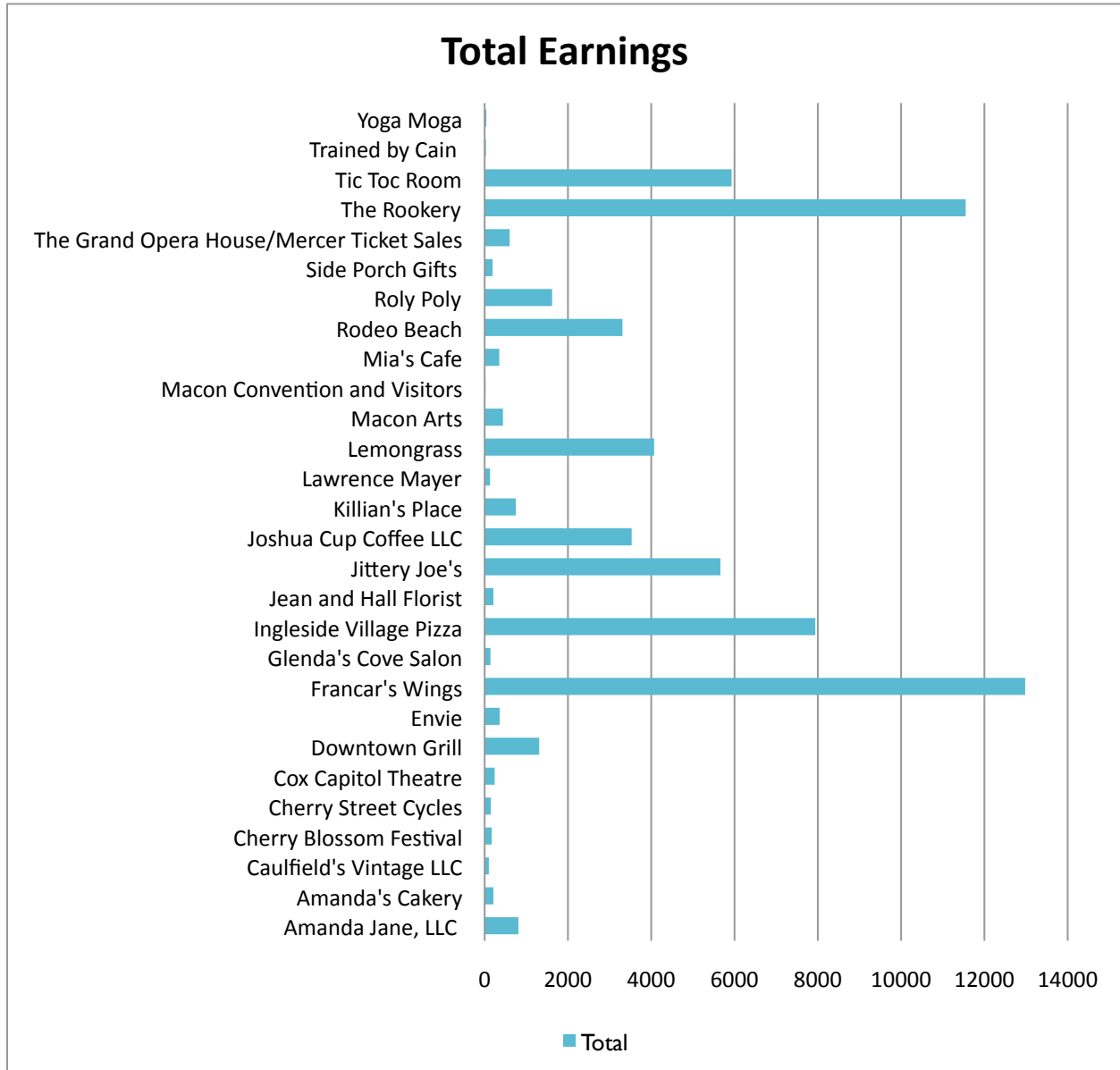
APPENDIX 2

Participating Macon Money Businesses

Source: Area/Code

Amanda Jane, LLC
Amanda's Cakery
Caulfields Vintage LLC
Cherry Blossom Festival
Cherry Street Cycles
Cox Capitol Theatre
Dolce Vita
Downtown Grill
Envie
Eye Designs Optical
Francar's Wings
Glenda's Cove Salon
Golden Bough Bookstore
Ingleside Village Pizza
Jean and Hall Florist
Jittery Joe's
Joshua Cup Coffee LLC
Killian's Place
Lawrence Mayer Florist
Lemongrass
Luigi's Bistro
Macon Arts
Macon Convention and Visitors
Macon Symphony Orchestra
Mia's Cafe
Montrell's Place
Rodeo Beach
Roly Poly
Servant Business Systems
Side Porch Gifts
The 567 Center for Renewal, Inc.
The Grand Opera House/Mercer
Ticket Sales
The Macon Film Festival
The Rookery
Tic Toc Room
Trained by Cain
Treasure Vintage
TriChic featuring Lia Sophia Jewelry
Tubman African American Museum
Yoga Moga

APPENDIX 3 Participating Macon Money Business Earnings



APPENDIX 4

MM Social Media Use Analysis Summary:

There were several social media and online components that played a role in the Macon Money game. Unlike location-based social games where social media is a necessary component to playing the game (players depend on GPS in their devices and social media connected to that GPS to play the game) Macon Money was designed as a real-world social game that incorporated social media as one of many tools that players, organizers and local businesses could use to enhance the experience of playing the game.

On the game's Facebook page and through Twitter, participants and organizers engaged in four primary types of interactions with each other during the course of game play:

- **Type 1: Game Promotion by Macon Money Organizers** - These posts, comments or tweets were made almost exclusively by Macon Money staff to promote the game and participation in the game. Examples include: "Tell us where are you spending your money?"; "Only two more weeks to spend your money!"; "Macon Money recently won an award!"
- **Type 2: Game Advertisement or Promotion for Local Businesses** - These posts, comments or tweets were made by Macon Money staff, residents or businesses promoting their establishments. Examples include: "Spend your money here!"; "We are hosting a local happy hour!"; "Two new businesses just joined Macon Money!"
- **Type 3: Attempt By Players to Find a Match** - These posts, comments or tweets were made by Macon Money players attempting to find a match for their bond, and, if a match was found, making plans to meet up with the other player to redeem their bonds. Examples include: "I have Peach, Guitar, Blossom!"; "I'm your match! Where can we meet?"
- **Type 4: Game-related questions/comments** - These posts, comments or tweets were made by Macon Money staff, players or businesses who had questions or general information announcements about the game. Examples include: "How late will office headquarters be open today?"; "Our tracking system is down and we cannot accept bonds at this time."

In addition to tracking basic usage statistics, such as unique visitors per month to the Macon Money website, or "Likes" on Facebook, a content analysis was performed on both Macon Money Tweets and Facebook wall posts to gauge trends in types of interactions and overall activity. On the Macon Money website the types of interactions listed above took place on specific forum pages designed for players to search for and find a match so there was no need to analyze that content further. The totals for each are listed in the section on the Macon Money.org website.

Generally, all online activity peaked during March and April, 2011. Activity on Facebook and the MaconMoney.org website forums tapered off quickly by early May. A comparison of social media data to general game activity will show whether this is consistent with peak levels of general game activity.

Facebook was the most popular destination for communication with 814 total posts, and 809 within the duration time period of 10/2/10 - 7/30/11. The MaconMoney.org website forums had a total of 575 posts over the same time period. Twitter was a distant third with 142.

For player matches Facebook was the most popular destination with 560 posts while the MaconMoney.org site forum was close behind with 545 posts.

Summary by Social Media Type:

Facebook:

During the course of the game there were a total of 1,025 "Likes" of the Macon Money Facebook page. The totals for Facebook wall posts by type reveal that the bulk of page activity was by players actively looking to connect to other players in order to find a match:

Breakdown of Posts by Type:

Type 1 Game Promotion	68	8.35%
Type 2 Business Promotion	117	14.37%
Type 3 Player Matching	560	68.80%
Type 4 Questions & Comments	69	8.48%
Grand Total	814	100.00%

Posting activity peaked during April, 2011, when there were a significant number of players searching for a match. (Please see the attached graphs for a timeline of post activity by type.) In general, activity was well distributed across users, and there were only 15 users other than Macon Money staff who are considered "highly engaged," meaning that they posted and/or commented on the page ten times or more.

Most Engaged Facebook Users:

Danielle Jones	22
Sheetal Patel	15
Anna Wilds-Pritchard	14
Lauren Pitts	14
Kashfia Khan	13
Michael Lopez	13
Bess Fannin Hallar	12
Erik Brown	12
Amy Gandhi	11
Tammy Hardison Jones	11
Donna Hemphill	11
Wade Weldon	11
Jessica Clarence	10
Pamela Brown	10
Grant Mulkey	10

Over 90% of Macon Money staff's Facebook posts were Types 1 and 2, and staff spent half of their posts on Type 2, promoting local businesses that were participating in the game. In contrast, users other than

Macon Money staff spent over 80% of their posts attempting to find a match for their bond. In addition, the Macon Money Facebook page referred roughly 10% of all website traffic to Maconmoney.org, serving as the third largest traffic source to the site (behind only direct traffic and Google search) and as the largest referral source.

Breakdown of Post Type by Macon Money Staff:

Type 1 Game Promotion	64	42.11%
Type 2 Business Promotion	76	50.00%
Type 4 Questions & Comments	12	7.89%
Grand Total	152	100.00%

Breakdown of Post Type by All Users Other than Macon Money Staff:

Type 1 Game Promotion	4	0.60%
Type 2 Business Promotion	41	6.19%
Type 3 Player Matching	560	84.59%
Type 4 Comments & Questions	57	8.61%
Grand Total	662	100.00%

Twitter:

The content of the Macon Money staff account tweets reflected similar patterns to their Facebook data. Nearly 48% of staff tweets were Type 1 to promote the game generally ; and nearly 47% were Type 2 to promote local businesses. (Please see the attached graphs for a timeline of tweet activity by type.)

Breakdown of Tweets by Type:

Type 1 Game Promotion	68	47.89%
Type 2 Business Promotion	66	46.48%
Type 3 Player Matching	1	0.70%
Type 4 Questions & Comments	7	4.93%
Grand Total	142	100.00%

Unfortunately, Twitter activity data other than the tweets by Macon Money staff and a list of their followers -- such as all activity tagged with the MaconMoney hashtag, or the number of times were not available for this analysis.

Maconmoney.org:

During the period of playing the game, from 10/2/10 - 7/30/11, there were 7,202 unique visitors to the Macon Money website, maconmoney.org. The Top Content data for the site shows that the forum page

for players to look for a match, Find Your Match, was the fifth most popular page on the site, with 5.57% of all page views.

Top Page Content on maconconmoney.org:

Page	Page Views	% of Page Views
/ (homepage)	11,932	20.81%
/get_started (request a bond)	5,243	9.15%
/where_to_shop (list of businesses)	4,659	8.13%
/how_to_play	3,841	6.70%
/forums/forum/board/4/1/21 (Find Your Match)	3,193	5.57%

During the peak game activity months of March and April, 2011, the Find Your Match forum page was more popular:

- March 1-30, 2011: Find Your Match jumped to third most viewed page, with 779 page views and 8.27% of page views for that month.
- April 1-31, 2011: Find Your Match jumped to fourth most viewed page, with 1,035 page views and 7.30% of page views for that month.

Here is the activity data for all three forum categories:

- General: 18 posts (between November 15, 2010 and June 15, 2011)
- Find a Match: 545 posts (between November 19, 2010 and May 5, 2011)
- News: 12 posts (between October 20, 2010 and May 4, 2011)
- Total forum posts: 575

Peak Activity:

In general, game activity, online and offline often peaked at the same times and March and April, 2011, were the two peak months of activity. We analyzed a seven-day period from 4/3-4/9/2011, which included peak activity days for Facebook, the Macon Money website and also two of the top five dates for bond redemption data. We found that there were offline events on four out of the seven days that we analyzed, and that those events were located at Mercer University, which likely contributed significantly to overall activity. (Please see the attached graphs for an overview of all activity.)

Peak Week Analyzed:

4/3-4/9/2011

Peak Total Facebook Activity Dates:

Date	# of Posts
4/5/2011	48
4/7/2011	46
4/6/2011	43

4/4/2011	30
4/8/2011	30

Peak Find Your Match Facebook Activity Dates:

Date	# of Posts
4/5/2011	45
4/6/2011	39
4/7/2011	37
4/8/2011	28
4/4/2011	25

Peak Total Website Dates:

Date	# of Visitors
4/5/2011	209
4/6/2011	204
4/7/2011	195
4/8/2011	185
4/14/2011	176

Peak Total Website Find a Match Forum Dates:

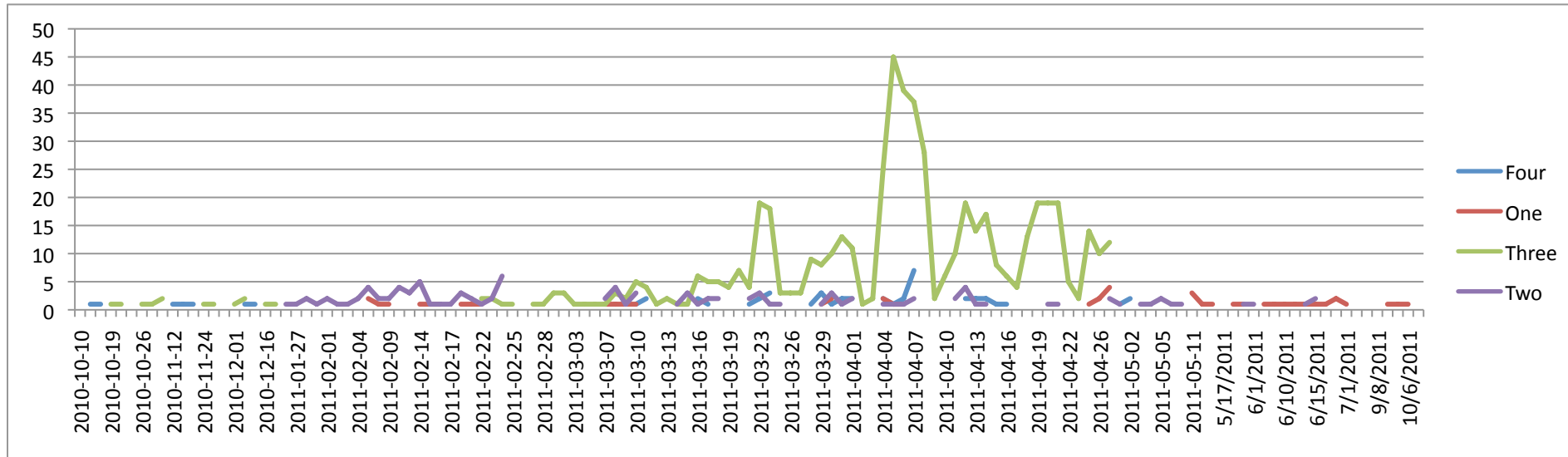
4/7/2011	89
4/4/2011	77
4/25/2011	71
4/6/2011	70
4/12/2011	70

Peak Bond Redemption Dates:

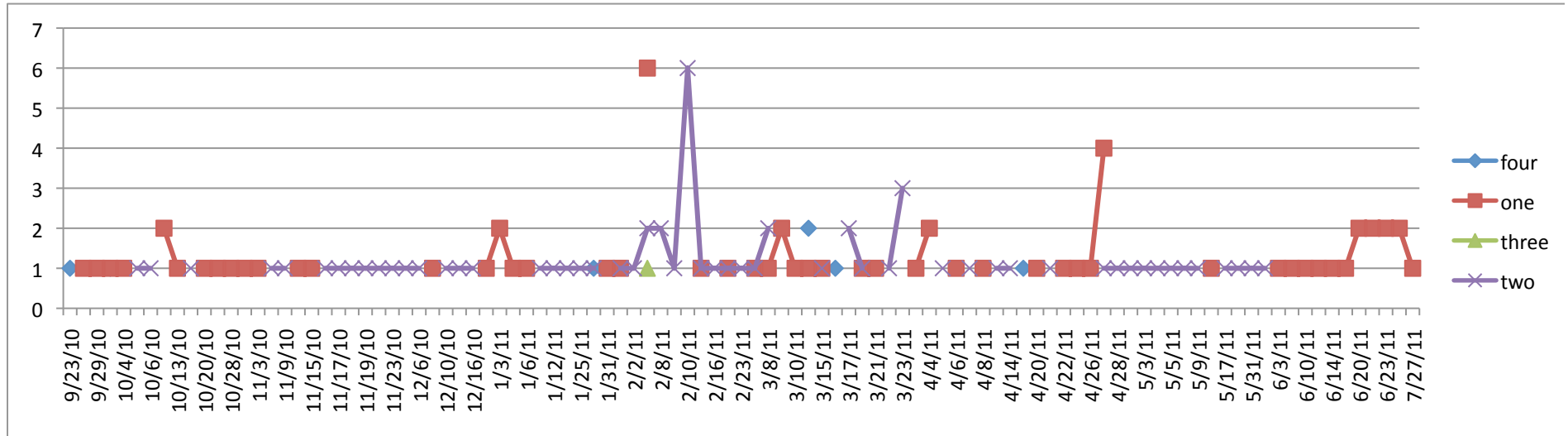
3/17/2011	126
4/6/2011	126
4/7/2011	122
4/10/2011	96
4/21/2011	122

Peak Week Data - All: (Please see graphs following.)

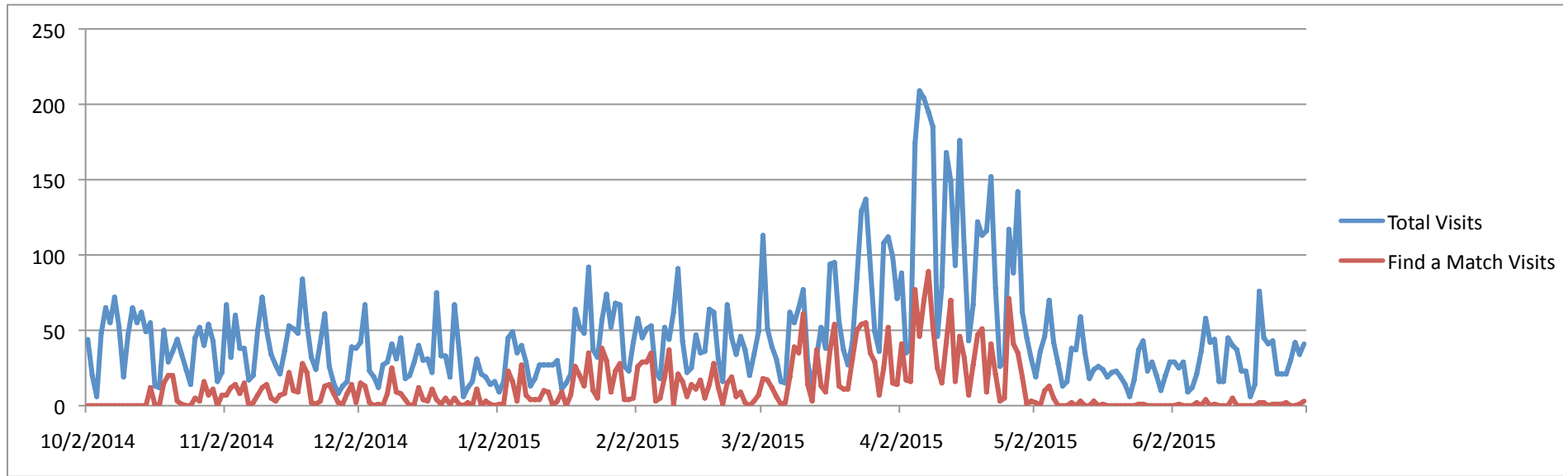
Macon Money Facebook Post Activity Over Time by Type:



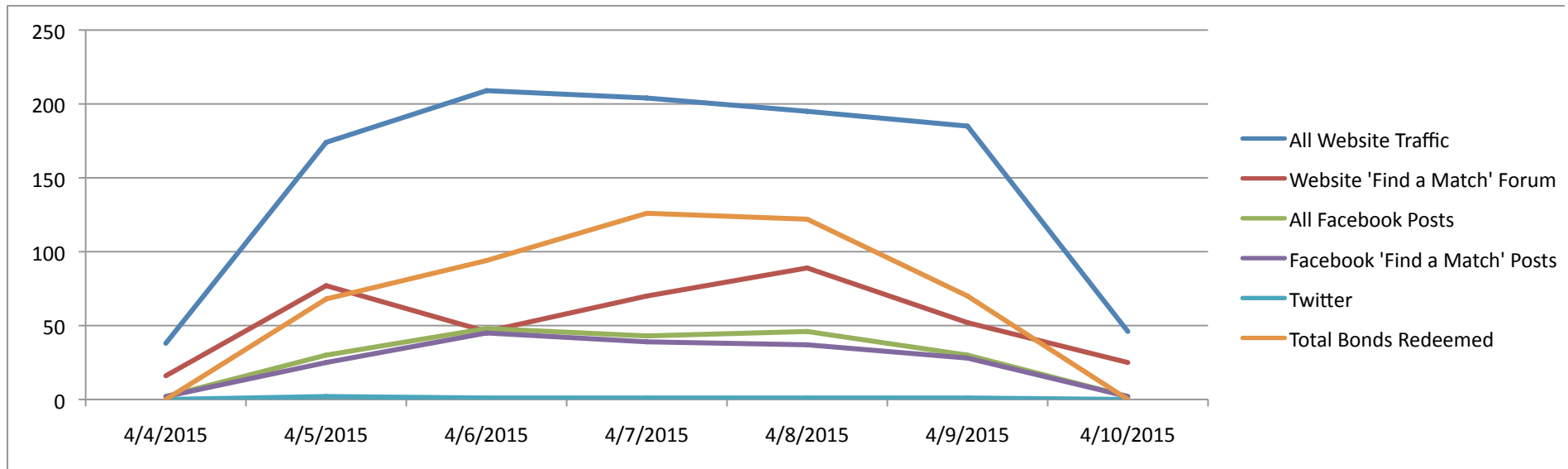
Macon Money Account Tweet Activity Over Time by Type:



Macon Money Website Visits Over Time by Type:



Sample Peak Week of Online Activity - 4/3-4/9/2011:



**Note: "Match Up" Events took place at Mercer University on 4/4, 4/5, 4/6, and 4/7; and, the top two bond redemption dates for the game were 4/6 and 4/7.

Date	All Website Traffic	Website 'Find a Match' Forum	All Facebook Posts	Facebook 'Find a Match' P	Twitter	Offline Events	Event Location	Total Bonds Redeemed
4/3/2011	38	16	2	2	0	0		0
4/4/2011	174	77	30	25	2	1	Mercer University	68
4/5/2011	209	46	48	45	1	1	Mercer University	94
4/6/2011	204	70	43	39	1	1	Mercer University	126
4/7/2011	195	89	46	37	1	1	Mercer University*	122
4/8/2011	185	52	30	28	1	0		70
4/9/2011	46	25	2	2	0	0		0