

Getting Bike Share Rolling in Your Community

An Analysis of and Lessons Learned from The City of Asbury Park's Bicycle Share System in 2018

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Executive Summary

With each passing year New Jersey's population grows. This growing population will need to utilize the State's transportation network to attend school, work, and recreate. Currently motor vehicles such as cars, SUV's, and trucks are the dominant form of transportation, but with a growing population and limited space, New Jersey can't hope to accommodate an infinitely growing supply of motor vehicles. Alternate modes of transportation are necessary in order to supplement the growing need for transportation currently being met by the usage of motor vehicles."

Bicycles are one mode of transportation that can help supplement the transportation network and are quickly growing in popularity. For those that do not own bicycles, bicycles can be made available through bicycle share systems. These systems have been emerging in cities throughout the United States over the past decade and have been operating abroad even longer.

This report is intended to advise interested municipalities or agencies how to best organize and launch a bicycle share system. There are many options to consider when launching a bicycle share system and while the bicycle share vendors are experts on their vehicles and services, they aren't familiar with local attractions, popular areas, or the special needs of residents and visitors. Local knowledge is critical to launching a successful bicycle share. This report draws on the experiences and data collected in 2018 by The City of Asbury Park, which recently launched the first bicycle share system within Monmouth County, in order to determine best bicycle share practices in suburban New Jersey. Many large cities have years of experience with bicycle share but their experiences may not translate well to smaller suburban towns such as those found in Monmouth County. While The City of Asbury Park is far denser than most municipalities in Monmouth, its size, characteristics, and features are more relatable to suburban municipalities than those of large cities.

About Bike Share Systems

Bike Share Systems are a service in which bicycles are made available for short term rentals. These systems come in various forms, the most common of which being docked and undocked services. Docked bicycle share systems provide bicycles at pre-determined locations. Bicycles are locked to specialized bicycle racks at these pre-determined locations where rentals begin and end. Dockless systems consist of GPS enabled bicycles that do not require station infrastructure and instead have all infrastructure built into the bicycle, allowing for rentals to begin and end at any location.

Docked Bicycle Share Systems have the benefit of allowing a municipality or agency to control the distribution, and location of bicycles. Renters always know where to find a bicycle and bicycles are not littered throughout the area or in undesirable locations. These systems come in different shapes and sizes, for instance New York City's Citi Bike has limited rental duration. When this time period expires, renters must return the bicycle to a docking station in order to continue their rental. Other systems allow for uninterrupted rentals that continuously charge renters by the minute. Rental rates often change at different rental intervals to incentivize renters not to monopolize bicycle use for extended periods of time.

Dockless Bicycle Share Systems allow for greater convenience and availability as renters can end rentals at their exact destination without having to perform a last mile trip to and from a bicycle share station. However, some find this system to be a burden as bicycles tend to become strewn about the area often obstructing sidewalks, driveways, and entrances to businesses and homes.

Vendors can provide bicycles of different styles and with different features. Denser urban areas may prefer a street bicycle while a leisurely beach town may prefer a more laid back beach cruiser model. In addition bicycles can be provided with different features such as baskets, various types of headlights, bicycle locks, and advertising space. Municipalities and agencies intending to implement a bicycle share system should speak with multiple bicycle share vendors and explore their options in order to determine what features and bicycle models would best suit their needs.

Overview

In 2017 The City of Asbury Park contracted with Zagster to operate a bicycle share system within the City limits with the intention of improving circulation and providing an alternate means of transportation. Bicycle share is becoming increasingly popular around the Country and has shown itself to be an exceptional addition to many cities. However, the presence of a bicycle share system alone may not be enough for it to be successful. The implementation of a bicycle share system must be well thought out to optimize bicycle usage and have the biggest effect on an area. Most systems are currently located in larger cities whose deployment strategies may not be as effective or reasonable for smaller municipalities. The intent of this report is to analyze the performance of The City of Asbury Park's bicycle share system and to develop strategies for deployment of bicycle share systems in smaller, less densely populated municipalities. The City of Asbury Park is not a perfect representation of a typical suburban municipality, but it does contain less dense residential communities, a densely populated downtown, and multiple varying types of commercial districts with different attractions that may be present in other suburban municipalities.

Originally, The City of Asbury Park's bicycle share system consisted of six bike share stations and thirty bicycles. The system began operating in August 2017 and was expanded to include two additional stations and ten additional bicycles in January 2018. The Zagster bike share system is a docked system, meaning all rentals must begin and end locked at a Zagster bicycle station. The stations are located at: Convention Hall, The Stone Pony, The Empress Hotel, 7th Avenue and Grand Avenue, Press Plaza (Cookman Avenue and Emory Street), Springwood Park, and East and West of The Transportation Center. For the purposes of this reports analyses, The East and West Transportation Center Stations have been combined and are considered one station. Figure 1 shows the locations of all bicycle rental stations and land use throughout the City. The Convention Hall, Stone Pony, and Empress Hotel Stations are located along the beachfront on the East side of the City which is predominantly commercially developed around the stations with residential land use one block to the West. The Press Plaza Station is in the Southern portion of the City along Cookman Avenue which serves as the Cities downtown district. This area is heavily commercialized with mixed use residential above the businesses located on the ground floor. The Transportation Center is the City's hub for all rail, bus and private taxi services. The rail service is separated into the East and West Stations but both are serviced by NJ Transit's North Jersey Coast Line train. The Center has heavier commercial and mixed-use residential to the east, along with more single use residential development to the west. The Springwood Avenue Bicycle Station is located in the South Western portion of the City and the 7th Avenue Bicycle Station is along Grand Avenue in the North Eastern portion of the city. These two areas are heavily residential neighborhoods.

The City of Asbury Park Bicycle Share System

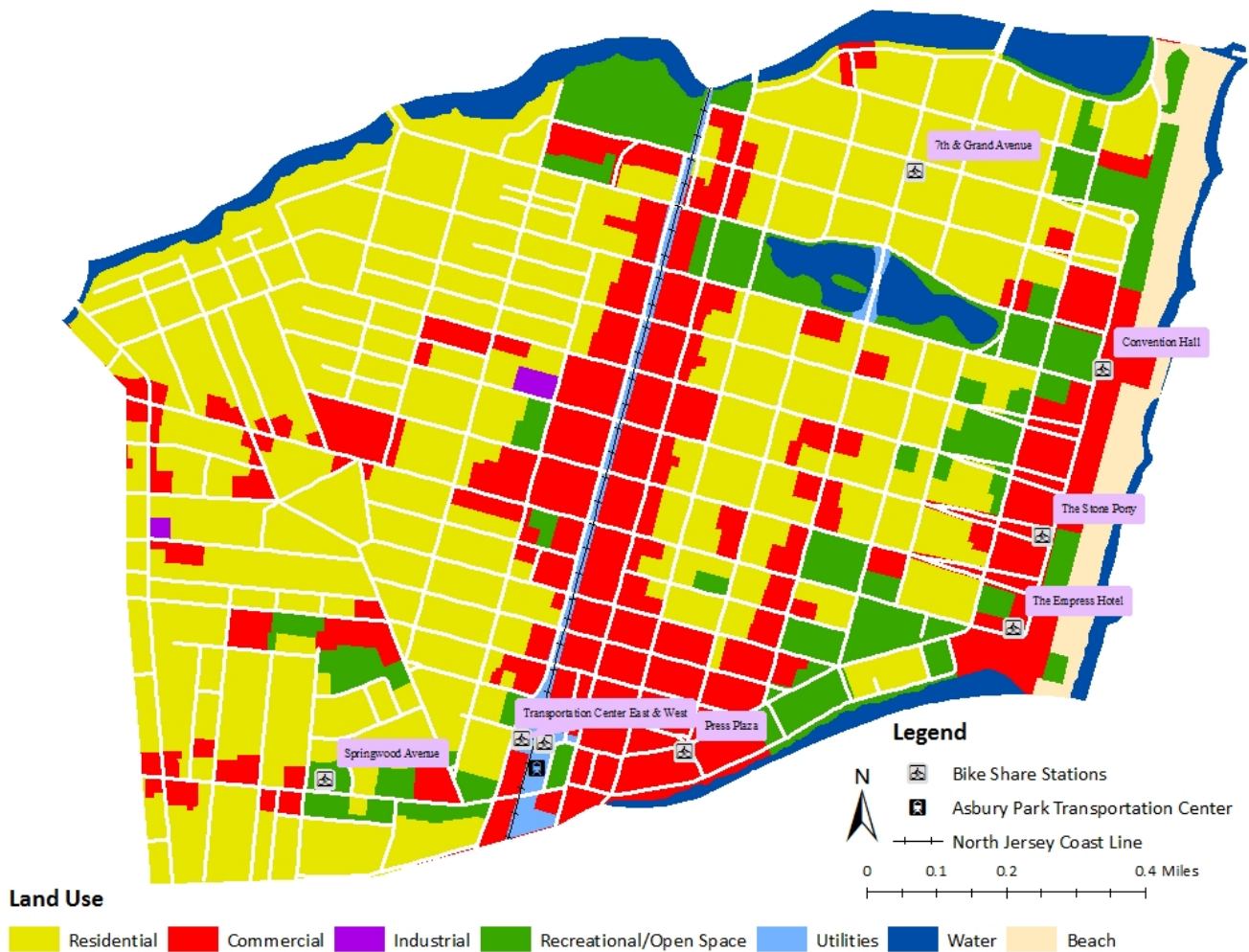


Figure 1: Asbury Park Bicycle Share Stations

A total of 6,234 bicycle rentals have taken place between the systems launch on August 23, 2017 and October 31, 2018. Zagster has provided data on each of these rentals however; their software was not able to capture complete data for all rentals. 6,124 rentals had sufficient data to be mapped and analyzed for this report, 4,915 of which occurred during the year of 2018. This report focuses on those rentals that occurred during 2018. Of the recorded rentals, over a quarter were recorded to have taken place at both the Convention Hall and Press Plaza Station, about fifteen percent occurred at both the 7th Avenue and Empress Hotel Stations, less than ten percent at both the Transportation Center and Stone Pony Stations, and only one percent occurred at the Springwood Avenue Station (Figure 2)

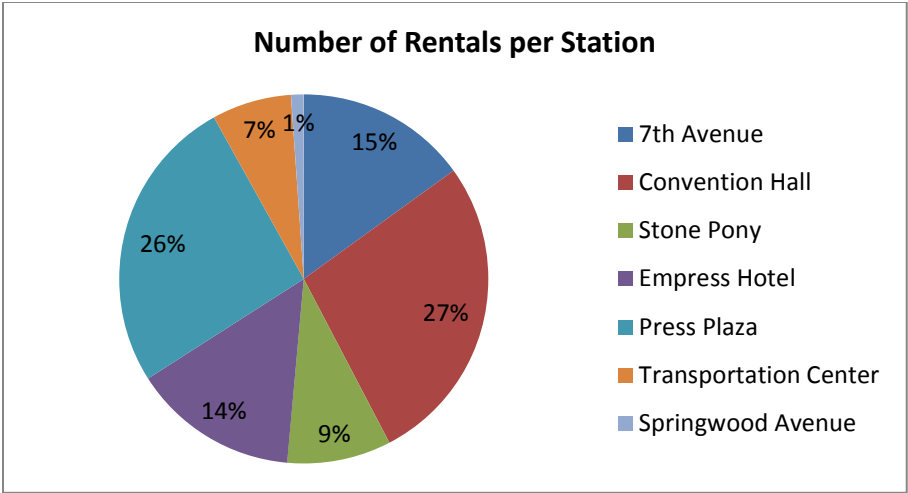


Figure 2: Number of Rentals per Station

Rentals by Day, Time of Week, and Month

2,084 rentals were made on weekends (Saturday and Sunday) while 2,831 rentals were made on weekdays (Monday through Friday). Although weekday rentals were higher (Figure 3), both weekend days of Saturday and Sunday experienced much higher numbers of rentals than other singular weekdays throughout the year. In fact, on average 20 rentals were made each weekend while only 13 were made per weekday period. Saturday had the highest number of rentals with 1,158, a trend shared by all individual stations (Appendix B), and was followed by Sunday with 926 (Figure 4). The weekdays ranged from 480 to 723 total rentals with Friday experiencing the most with 723. Friday's popularity is most likely a result of its close association with the weekend when visitors come to Asbury Park to experience events, restaurants, and nightlife. The majority of the individual Zagster stations saw a similar split between weekend and weekday rentals with the exception of The Transportation Center and Springwood Avenue which saw higher than average weekday rentals (Appendix A). Being the major transit hub in the City, the 66% of weekday rentals made at the Transportation Center may be due to commuters renting bicycles to complete their last mile trips home. Meanwhile the Springwood Avenue Station is located away from the City's downtown in a more residential area, and may be seeing a heavy weekday usage to access the train station or jobs in the downtown area.

System Wide Rentals By Time of Week

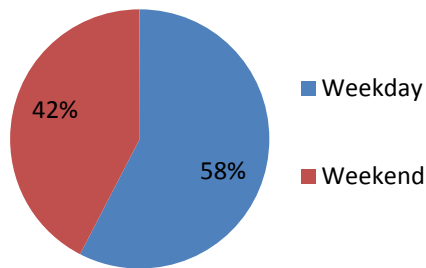


Figure 3: System Wide Rentals by Time of Week

System Wide Rentals By Day of Week

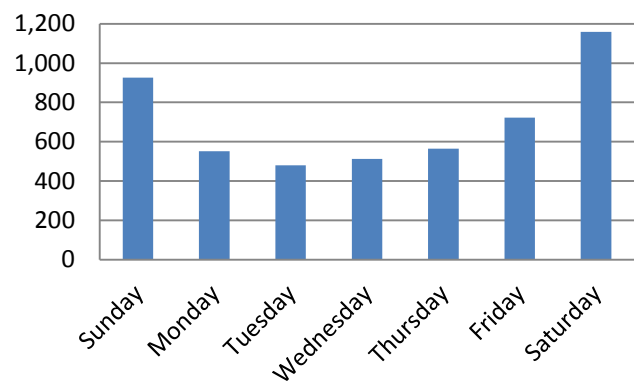


Figure 4: System Wide Rentals by Day of Week

Tuesdays experienced the fewest rentals system wide with 480, but beginning on Wednesday rentals began trending upwards. After rentals numbers peaked on Saturday, the trend would switch and begin to decrease each day until the weekly low of Tuesday. The system appears to have been utilized the least during the middle of the week between Tuesday and Thursday.

Average Rentals Per										
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Day	Weekend	Weekday
All Year	18	10	9	10	11	14	22	13	20	13
Summer	39	28	25	25	33	33	46	33	42	32
Spring	13	8	5	8	5	11	17	9	15	9
Autumn	17	6	5	4	5	9	22	10	20	8
Winter	2	1	2	3	0	1	4	2	3	2
January	4	0	0	0	0	1	5	1	4	0
February	1	1	6	8	1	1	4	3	3	3
March	7	0	1	1	1	4	8	3	7	1
April	12	3	1	3	4	7	25	8	18	3
May	21	21	11	17	11	23	21	17	21	16
June	25	22	17	11	26	27	43	25	35	21
July	48	31	27	41	36	38	40	37	45	34
August	41	30	30	24	35	34	56	35	48	31
September	36	14	7	7	11	18	45	21	41	11
October	8	4	8	4	2	10	11	6	9	5
November	4	1	0	2	2	1	3	2	4	1
December	1	2	0	1	0	3	4	2	3	1



Average ≥ Daily Average for That Time Period

Figure 5: Daily Average Rentals by Time of Year

Outside of the summer season greater numbers of rentals occurred on weekends while the summer experienced far more rentals on weekdays (Figure 7). The large difference in weekday and weekend rentals can be attributed to the number of days in each category. On average, weekend days saw higher numbers of rentals than weekdays every month of the year. Rentals averaged 42 per weekend day and 32 per weekday during the summer, 20 per weekend day and 8 per weekday in autumn, 15 per weekend day and 9 per weekday during the spring, and 3 per weekend day and 2 per weekday during the winter (Figure 6). So while July and August each experienced 65% of their rentals on weekdays and 35% on weekends (Figure 7) their weekends out performed their weekdays with averages of 45 rentals to 34 rentals in July and 48 rentals to 31 rentals in August. The data shows that weather has a large influence on the number of rentals but not necessarily the day of the week. Warmer months experienced significantly higher numbers of overall rentals than colder months ranging from 553 rentals in May to 1,152 in July. Colder months saw rentals ranging from 41 in January to 232 in April (Figure 6). The summer months contributed to the majority of weekday rentals recorded throughout the year due to Asbury Park’s large number of tourists who make use of the system while visiting the City’s beach. All individual stations other than Springwood Avenue shared in the trend of increased rentals during the summer months of June, July, and August (Appendix C) and decrease in rentals beginning in the fall and continuing through the winter.

The majority of stations saw a similar trend of rentals increasing from May to July and decreasing from August to September. The 7th Avenue station however, saw a relatively steady rental rate from May to September (Appendix C). In fact, although outside of the traditional summer tourism season, May and September saw a fair amount of rentals at all stations. The 7th Avenue station saw rental numbers during these months comparable to its seasonal summer peak. This may be due to residents of the residential area surrounding the station utilizing rental bikes as a regular means of transportation when the weather permits.

While most stations experienced winter rentals, the only ones to experience a majority of weekday trips outside of warm weather months of October to April was the Transportation Center and Springwood Avenue Stations. The Transportation Center’s proximity to the train station and very little adjacent residential development suggests the winter rentals made here may have been made by a dedicated group of commuters taking advantage of the bike share system for their last mile trips on nicer days (Appendix D).

System Wide Rentals by Month

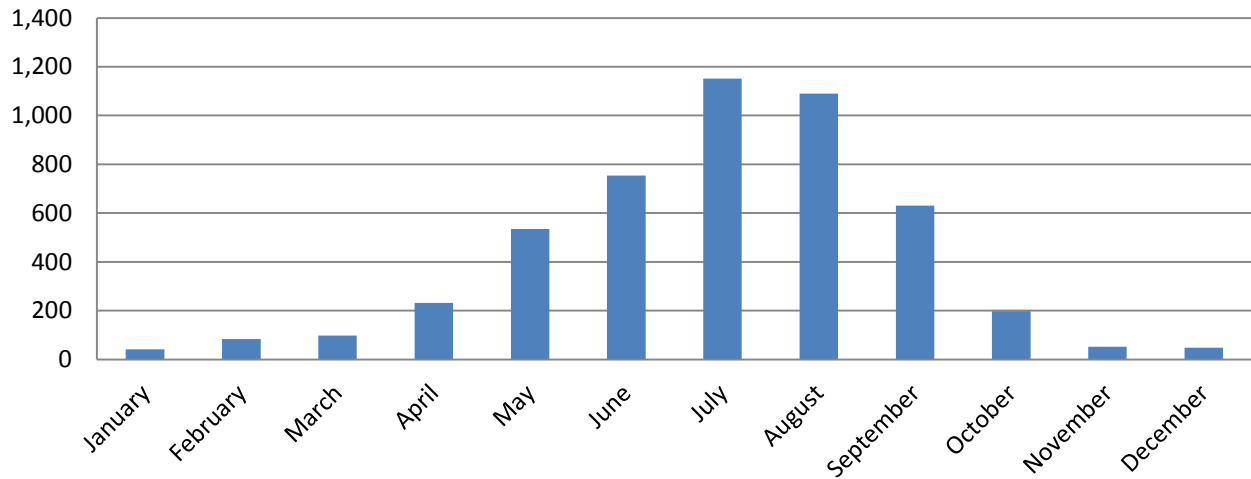


Figure 6: System Wide Rentals by Month

System Wide Rentals by Time of Week and Month

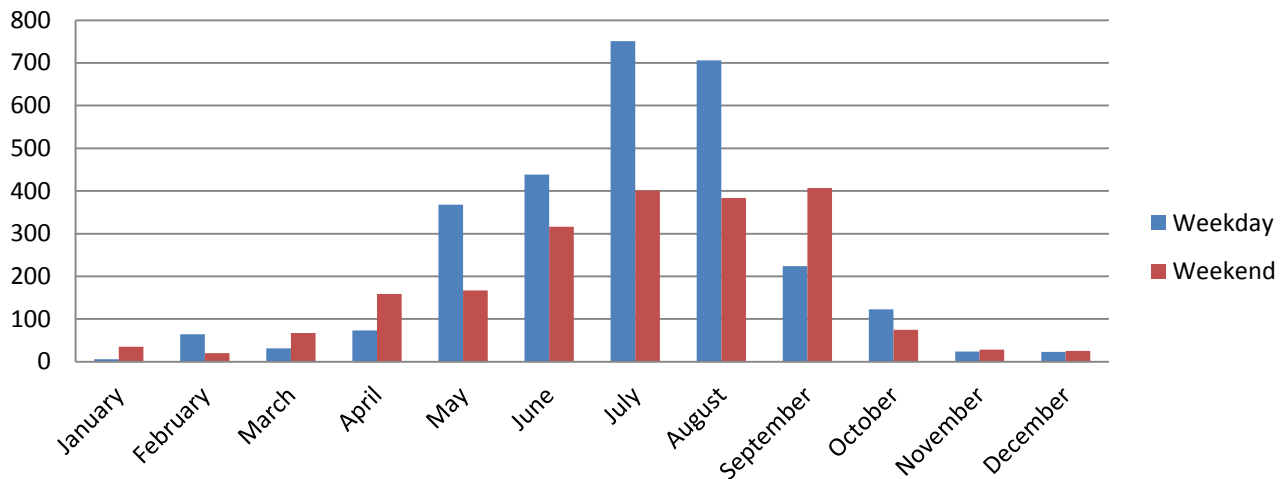


Figure 7: System Wide Rentals by Time of Week and Month

The months of May, June, July, and August appear to have experienced relatively consistent numbers of rentals between each day of the week (Figure 8) with a few days such as Wednesday and Tuesday underperforming. Friday being the most popular weekday for rentals, remained the most consistent month to month from May to September increasing slightly around the bike share system’s busiest month of July. Months outside of the summer season experienced far fewer weekday rentals. The change is most prominent in September where 65% of rentals were made on either Saturday or Sunday. This is most likely due to the colder weather and the absence of tourists during the off season. While the City still experiences tourism on the weekends, the off season does not have nearly as many people renting apartments or homes and vacationing within the City for weeks at a time that would utilize the bicycle share system during the week. While the off season months experienced greater numbers of weekend rentals, weekday rentals still occurred. These most likely correspond with nicer weather days and are made by residents trying to take advantage of

the pleasant weather. This continued heavy use during the off season weekends persistent yet low use during weekdays implies that tourism and weather play a larger factor in the number of rentals than the specific day or time of the week.

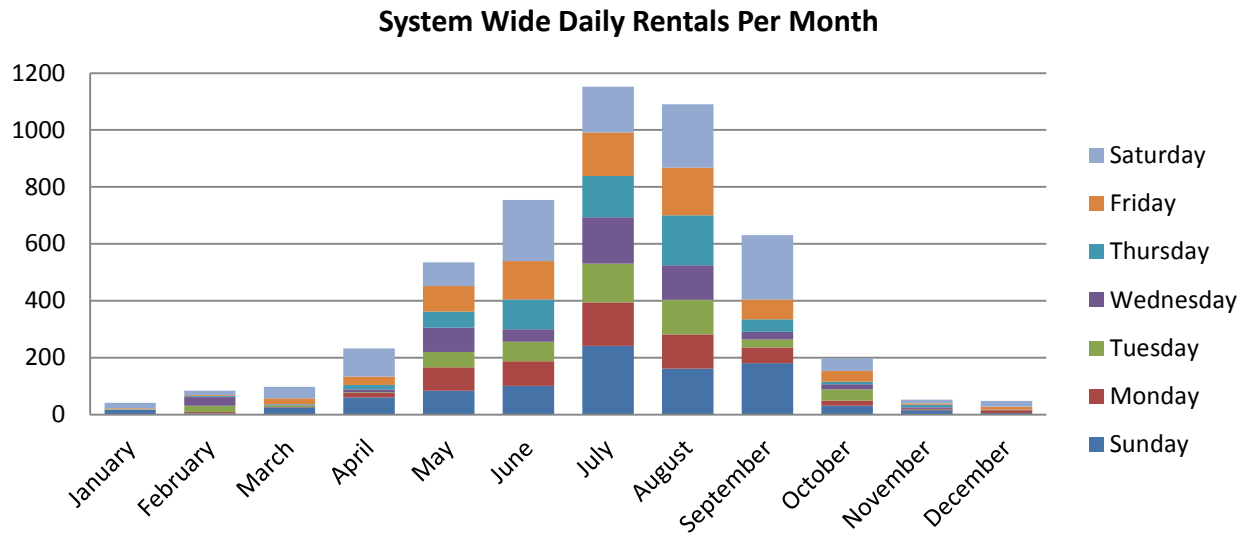


Figure 8: System Wide Daily Rentals by Day of Month

Special Events

Asbury Park regularly holds large scale events at the Convention Hall, Stone Pony, on the beach, or in one of its many parks. Events such as the *Sea. Hear. Now. Festival* brought thousands of people to Asbury Park over the weekend of September 29-30 causing a spike in bicycle rentals system wide, but predominantly at The Convention Hall and Press Plaza Stations (Appendix F). 69 total rentals were made on Saturday the 29th and 84 on Sunday the 30th. By comparison, the average number of rentals experienced on a weekend day in September was 41 while overall daily rentals averaged at 21 (Figure 5). These daily counts were both higher than any other day in September (Figure 9) and exceed the average number of Saturday and Sunday rentals for even the busiest of months. The festival itself was held on the beach near The Convention Hall Station. High rental rates at The Convention Hall and Press Plaza Stations suggest that visitors of the concert used the bike share system to patronize the downtown area along Cookman Avenue via the Press Plaza station. This most likely reduced the need for parking near the event and benefited businesses in two portions of the City. Similarly, the Fourth of July Holiday saw a total of 92 rentals made system wide which is nearly double that of any other day in July and far greater than the average number of 25 rentals experienced on Wednesdays during the summer season. Similarly, on Memorial Day (Monday June 25, 2018) The Transportation Center Station (Appendix F) saw a total of 21 rentals, which were most likely a result of people traveling to Asbury Park by train to visit the beach for the holiday. In comparison, the average number of rentals experienced on Mondays during the summer season system wide was 28. It is clear that large events, and holidays spark increases in bicycle rentals. The City of Asbury Park would benefit from reviewing past bicycle rental data on specific holidays and events and re-distributing the available bicycles for future holidays and events based on previous rental and travel trends.

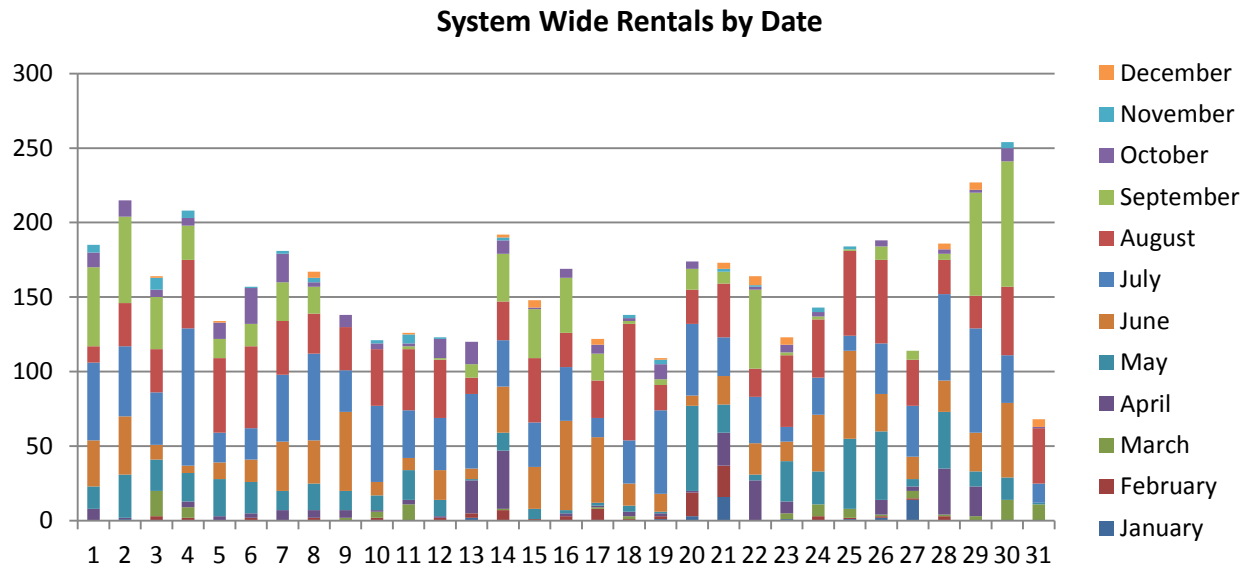


Figure 9: System Wide Rentals by Date

Rental Times, Durations, and Destinations

Over all rentals were fairly evenly spread out throughout the day with the exception of the early morning hours of 3:00 AM to 8:00 AM. During the peak period between 9:00 AM to 10:00 PM total numbers of rentals per half hour fluctuated around 150 rentals for the year (Figure 10). There doesn't seem to be any one time of day that experienced a higher number of rentals which implies the system is being utilized on regular bases for a variety of purposes. Beginning at 8:00 PM rentals slowly decreased until a lull in rentals in the early morning around 3:00 AM. This is to be expected. Rentals then increased again in the early morning starting around 6:00 AM.

Stations such as Convention Hall, and Press Plaza saw a higher number of rentals after 12:00 AM than other stations (Appendix G). This is most likely due to bar and restaurant patrons renting bicycles to travel home after a night of entertainment. Although to a lesser degree, this trend can also be seen at The Stone Pony, and Empress Hotel stations which are also situated near a number of late night businesses along the waterfront. The Stone Pony station saw a very high number of rentals around 10:00 PM which is around the time concerts usually let out. Rentals were most likely being made by concert goers leaving the venue to either return home or patronize other parts of the City. While these stations saw high number of late night rentals, The Transportation Center experienced a high number of evening rentals around 6:00 and 7:00 PM. These rentals could be due to commuters arriving by train utilizing rental bikes to finish the last mile of their commute.

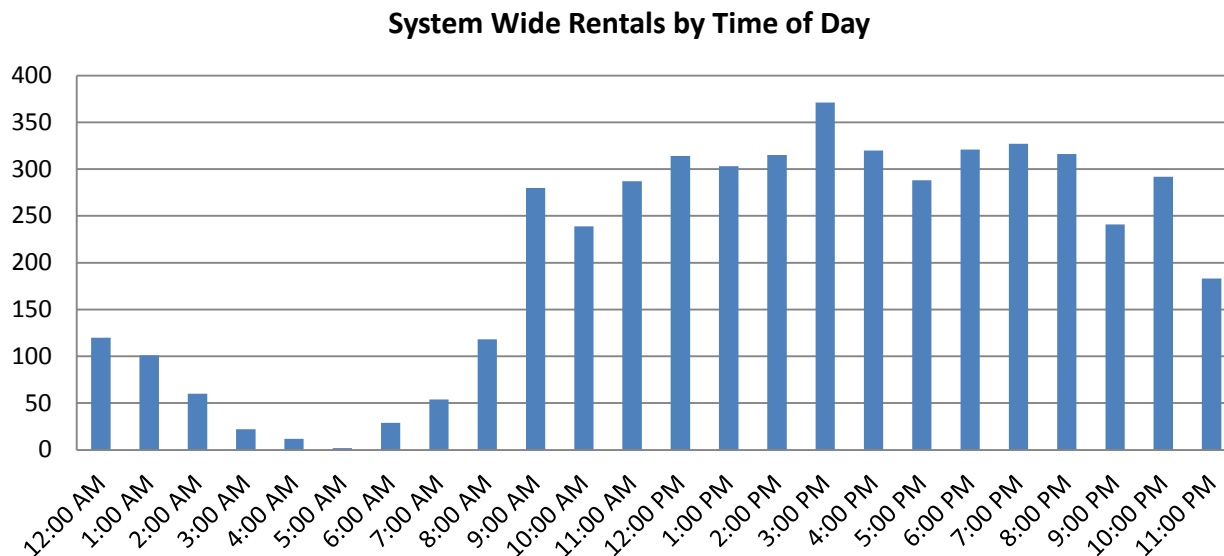


Figure 10: System Wide Rentals by Time of Day (Hourly)

While the majority of the year saw consistent rentals during the day, higher numbers of morning and evening rentals were recorded on weekdays, while greater numbers of late night/early morning rentals occurred on weekends (Figure 11). Specifically, the weekdays saw far more rentals between the hours of 6:00 AM and 10:00 AM as well as between 5:00 PM to 12:00 AM while the weekends saw a larger number of rentals between the early hours of 1:00 AM and 3:00 AM. The Transportation Center's high number of evening and night rentals were made on weekdays (Appendix H) further lending to the theory of train commuters utilizing the bike share system to complete their last mile trips. The 7th Avenue station also experienced a high number of weekday trips during the evening however, these rentals were most likely for a different reason. Residents and renters around the 7th Avenue station probably utilized rental bikes to access the beachfront and Downtown restaurants and bars in the evenings around 7:00 PM for dinner. Weekend afternoon rentals were high at this station as well and can probably be attributed to people accessing downtown and the boardwalk for lunch and entertainment. The bike share system is being utilized throughout the day, it is just more active at different locations at different times. On weekdays bicycles are being used in the morning to reach the beach or possibly the train station, throughout the day for multiple purposes, the evening for last mile trips home and entertainment with few in the early morning/late night hours. Over the weekend the system experiences the opposite with fewer rides in the morning and

evening but high numbers in the afternoon and early morning/late night most likely to access the City's nightlife and return trips home.

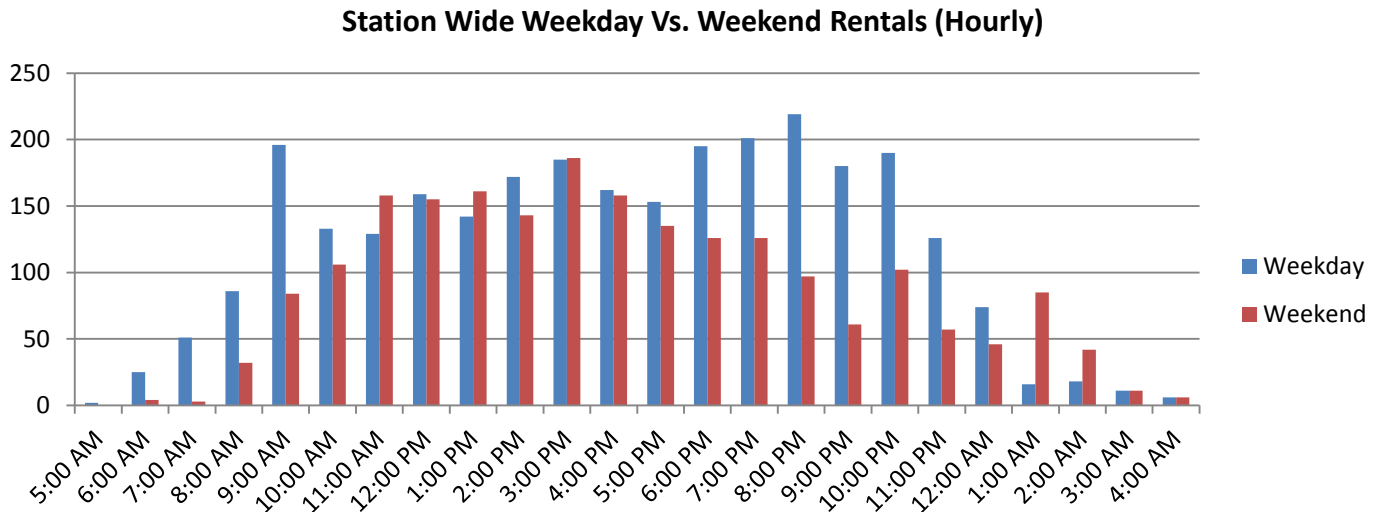


Figure 11: Station Wide Weekday vs. Weekend Rentals per Half Hour

Asbury Park's nightlife attractions consist of nightclubs, and numerous bars and restaurants staying open until 2 AM. Because of this, it is important to note that rentals in the range of 12AM and 3AM can most likely be attributed to the night life of the previous day. For instance Fridays at 11 AM saw a high number of rentals, this trend continues into the next day from 12 AM to 3 AM Saturday (Figure 12). These trips are due to night life participants patronizing businesses late into the night. We can see the same trend on Saturday evening into Sunday and Sunday into Monday. The Empress Hotel Station experienced a higher number of rentals at 12:00 AM on Mondays than any other station as a result of Sunday evening bar and nightlife patrons utilizing the bike share system to return home (Appendix I).

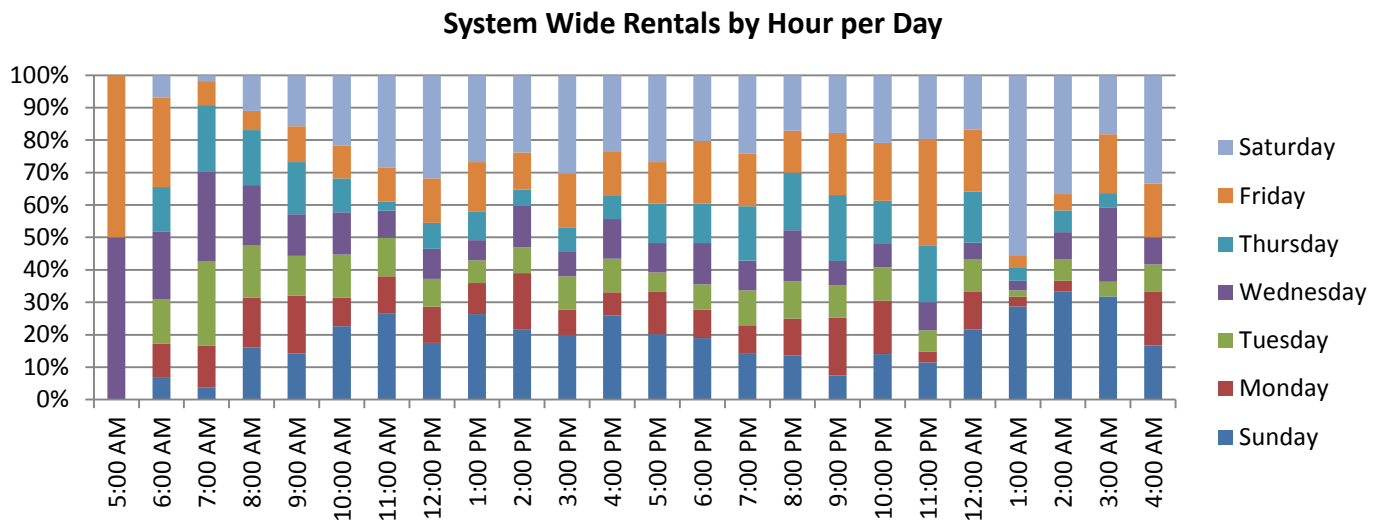


Figure 12: System Wide Rentals by Hour per Day

While rental durations widely varied, 92% of the 4,915 rentals that occurred during 2018 lasted three hours or less, 50% were thirty minutes or less and 35% were ten minutes or less (Figure 13). In addition, of trips that had a recorded destination, 51% were used to reach a new station and 49% were round trips terminating at the station of origin (Figure 14). The data shows the majority of rentals were short in duration and were nearly evenly split between one way trips and round trips, but it is impossible to know the purpose of each rental. Bicycles are popular for both recreational uses and traditional transportation uses, and this is no different for bicycle

share systems. Longer rentals are assumed to have been recreational rentals most likely originating and ending at the same station while shorter rentals are assumed to be attributed to one way trips to reach a new part of the City. However, it cannot be ruled out that some of the longer leisurely rides ended at a new destination or were used to run an errand and terminated at the originating station.

While round trips were very common, only Springwood Avenue and Convention Hall experienced greater than 50% round trips (Appendix J). Convention Hall, The Stone Pony, and The Empress Hotel Stations all saw the majority of their new destination trips end on Cookman Avenue at the Press Plaza Station. At the same time The Press Plaza Station saw a similar trend with trips ending at Convention Hall. This shows a strong connection between the beachfront and the downtown area along Cookman Avenue is being supported by the bike share system. The Train Station and 7th Avenue Stations saw a near even split between trips ending at Convention Hall and Press Plaza making them important stations for connecting residents on the North side of town and visitors arriving at the train stations to attractions around the City.

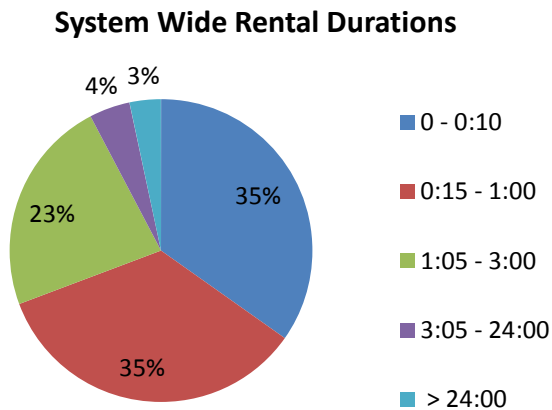


Figure 13: System Wide Rental Durations

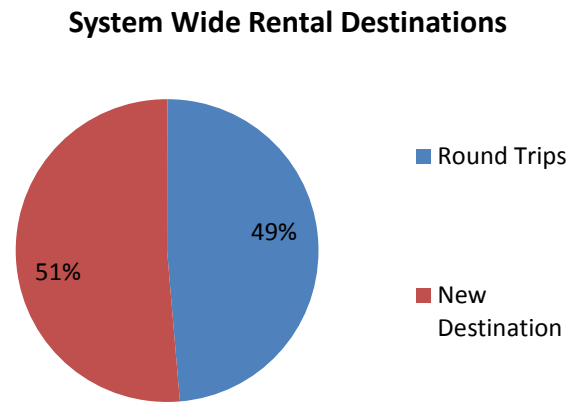


Figure 14: System Wide Rental Destinations

System Wide Rental Durations Under 3 Hours

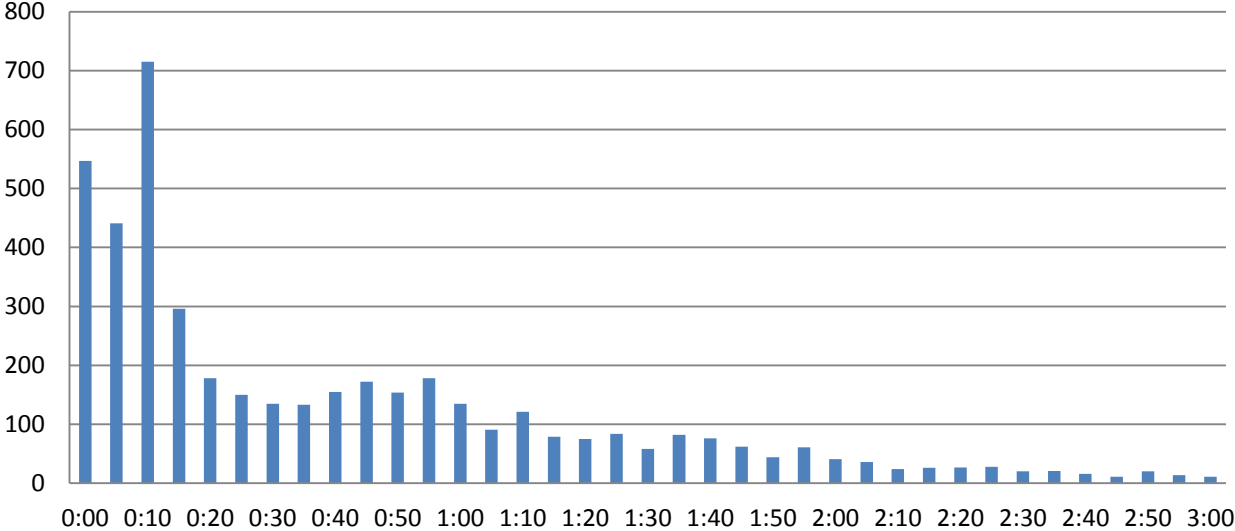


Figure 15: System Wide Rental Durations Under 3 Hours

Conclusion and Recommendations

With each passing year the demand for parking and overall vehicle congestion in Asbury Park grows. Both residents and visitors utilize motor vehicles to travel between different areas of the City and are constantly competing for parking. Additionally visitors accessing the City by public transit regularly take advantage of taxi and car share services to navigate the busy streets. Circling vehicles, taxis, and ride shares add to the already existing congestion and create a stressful and dangerous environment for pedestrians and drivers alike. In 2018 The City of Asbury Park's bicycle share system effectively provided residents and visitors with a transportation alternative that allowed them to navigate the City without the use of a motor vehicles as well as a provided a new attraction for visitors looking to enjoy local scenery and exercise.

High numbers of rentals were recorded between stations along the City's beachfront and downtown, the Transportation Center and residential neighborhoods, and the Transportation Center and residential areas with both the beachfront and downtown. The bike share system allowed patrons along the boardwalk a convenient means to reach shops and restaurants along Cookman Avenue and vice versa which many would not have attempted in previous years due to the difficulty of finding available parking and high parking costs. Residents and renters in the north eastern residential area of town utilized the bike share system to access the train station for commuting as well as businesses throughout the City and visitors are now more encouraged to visit the town by train rather than car as they have an accessible and cheap method of transportation available to them.

Asbury Park's bike share system was most popular during the warmer months of the year specifically within the summer tourism season although, stations in residential neighborhoods experienced a high number of rentals in both the fall and spring as well. During the summer, rentals were popular all days of the week while outside this season weekday rentals were far lower than weekends. Finally, special events, concerts, and the bar nightlife all greatly contributed to the number of rentals on their specific dates or busy times of day.

The following recommendations for the development on new bike share systems and the improvement of existing systems are based on the trends witnessed in The City of Asbury Park's 2018 Bicycle Share data analyses.

Recommendations

1. *Identify and provide connections between commercial areas*

Providing alternative options to allow access to multiple commercial areas will encourage patrons who would normally be unwilling to use their vehicle to move between busy areas to continue visiting store fronts and encourage those who normally do to forgo using their motor vehicles thus decreasing traffic volume, congestion, and the number of circling vehicles.

2. *Connect residential neighborhoods to commercial areas and attractions*

Providing bicycle share services in commercial areas capitalizes on visitor use and circulation, but only when visitor traffic is high. For example, the majority of Asbury Park's bike share stations experienced the highest number of rentals during the summer months. Asbury Park's 7th Avenue station however, experienced higher numbers of rentals during spring and fall months than all other stations. This was due to the residential population around this station choosing to use bicycles to navigate the City rather than their motor vehicles. Providing bike share services to residents allows them to leave their vehicle at home which provides more parking spaces for visitors. Not all residential neighborhoods will see these results. Asbury Park's Springwood Ave station had very few rentals throughout the year but is still an important connection that may become more popular as the City grows. This station should not be removed due to low usage; instead some bikes should be distributed away from this station so they do not become trapped and unused. The City of Asbury Park may benefit from expanding their bike share to incorporate the City's North West side which has already seen an increase in bicycle infrastructure such as bike lanes and racks.

3. *Aim to create a bicycle share culture*

With the exception of the 7th Avenue Station, The City of Asbury Park saw few rentals outside the summer season. This is in large part because of the weather during the off season months but spring and fall still offer a long period of pleasant bikeable weather. By encouraging or incentivizing use during the fall and spring months a culture of bike share use can be built, driving up the number of rentals in and out of the warm weather season. This can be done by off peak season pricing, or teaming with businesses to encourage bicycle use to access special events within commercial areas.

4. *Distribute more bicycles to areas holding special events*

Special events can include things such as concerts, parades, festivals, and holiday celebrations. All of which attract large groups of people at specific dates and times and drives up bicycle share use as seen in the Asbury Park Bicycle Share data. By reviewing previous years' event attendance, ticket sales, or bike share data will help determine how many bicycles may be needed in certain areas. A regular service offered by bike share providers is the collection and redistribution of bicycles throughout the network. If the providers were made aware of the demand for bicycles they may be able to redistribute bicycles from other stations to busier stations close to the scheduled events, or re distribute bicycles midday to ensure stations do not run out of bicycles. The availability of bikes will allow for event goers to patronizing other areas and providing them with more parking options farther from the event. For example, more bikes should be distributed to Asbury Park's Convention Hall and Press Plaza stations at this year's *Sea. Here. Now Festival* due to a spike in rentals at the previous year's event.

5. *Connect public transit to commercial areas and residential areas to encourage lower vehicle use and higher bicycle use among commuters*

A common barrier to public transit use is completing first and last mile trips. While many people are able to complete their commute by bus or train, they often prefer driving themselves because using public transit requires them to find some way to travel the first and last miles their homes to the bus or train station. Providing bicycle share connections between residential neighborhoods and public transit provides residents with a regular means of completing these trips. Asbury Park's Transportation Center Stations saw high numbers of weekday evening rentals which were most likely commuters completing their commute home from the Transportation Center by bicycle on nicer weather days. This use of bicycle share decreases the need for additional parking around transit hubs and lowers the number of vehicles idling or circling while waiting to pick up. Similarly connections between public transit and commercial areas encourage commuters arriving to town to utilize bicycles to complete their last mile to their place of employment. This results in fewer vehicles taking up parking spaces in town.

6. *Decide on your busy tourism season and possibly use varying prices outside of busy summer season to incentivize more people to utilize bike share during the week*

Incentivizing the use of the bicycle share system outside of the usual busy season will provide a more consistent stream of revenue and help maintain people's interest in bicycling year round rather than just to avoid congestion.

7. *Partner with neighboring towns to increase the number of attractions and residential areas the bike system can reach*

Partnering with neighboring towns to build more expansive bike share networks that reach greater numbers of residents and businesses will encourage more bicycle use, relieve traffic congestion, and embolden more residents and visitors to patronize areas they usually wouldn't.

8. *Build and sign scenic routes that will attract visitors and residents to explore the towns attractions, culture, and scenery*

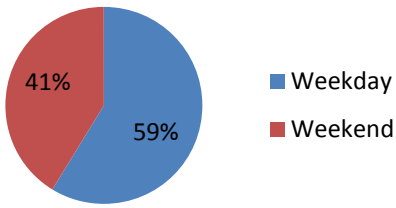
An interesting trend discovered within the Asbury Park Bicycle share data shows nearly every bike share station in Asbury Park's bike share network saw close to half their rentals end in a round trip. While some of these were probably errands being run many others were leisurely trips around the City for recreation and exercise. Developing and signing a scenic bicycle route around a town's commercial, historical, cultural, and scenic attractions will encourage more riders to explore the area and experience location they have not visited before or were not aware of while out for a leisurely bicycle ride.

9. *Pay attention to the weather and distribute bicycles accordingly*

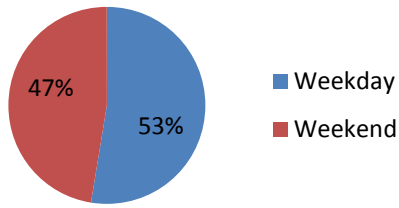
Bicycles require maintenance and regularly need to be removed from service for repairs. Additionally the number of bicycles may decrease outside of the busy summer season due to lower use. However, an uncharacteristically warm weekend during the winter, spring, or fall months may spark an interest to rent bicycles. This should be capitalized on by paying attention to weather patterns and ensuring that bicycles are made available for these nice weather days. The availability of bicycles will also help continue the growth of a bicycle culture and remind people who may not have used the system in months due to poor weather that the bicycle share system is still available.

APPENDIX A: Individual Station Rentals by Time of Week

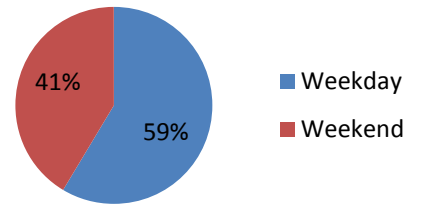
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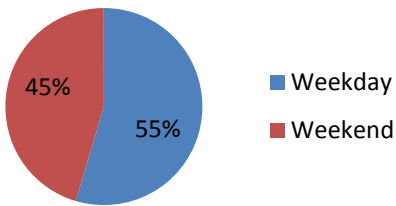
Stone Pony



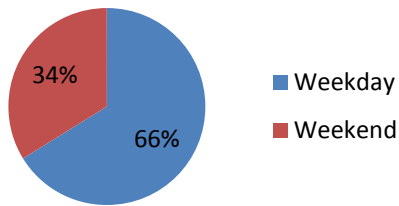
Empress Hotel



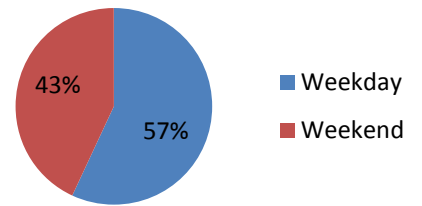
Press Plaza



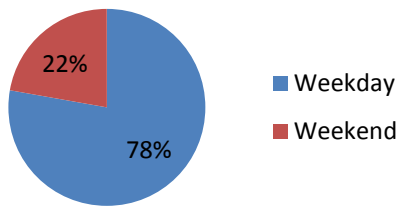
Transportation Center



7th Avenue

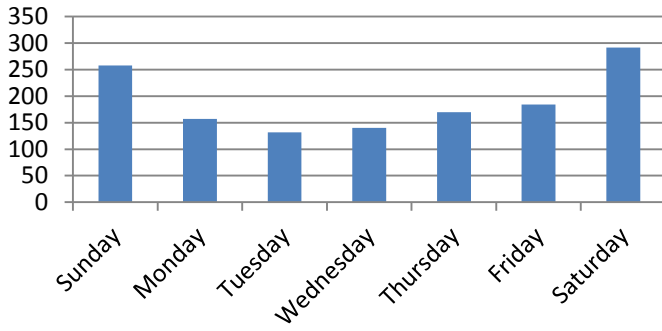


Springwood Avenue

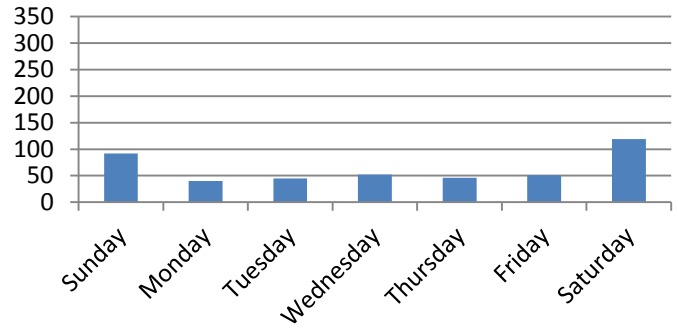


APPENDIX B: Individual Station Rentals by Day of Week

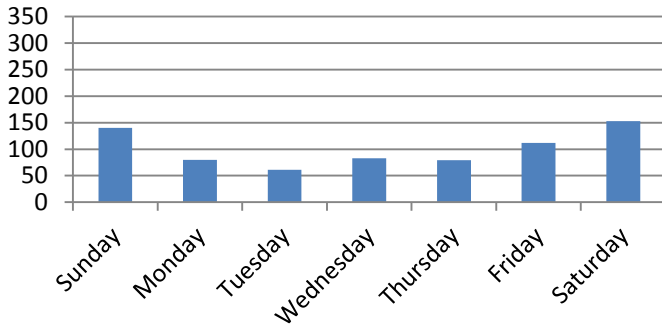
Convention Hall



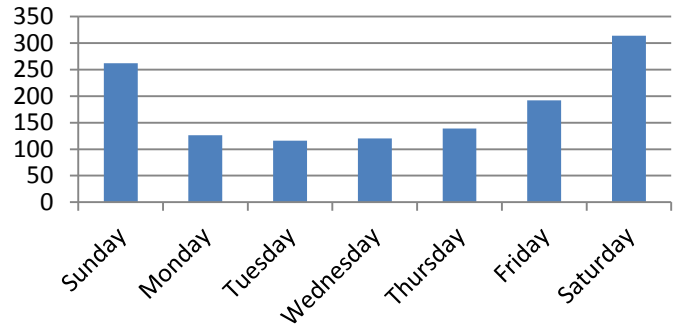
Stone Pony



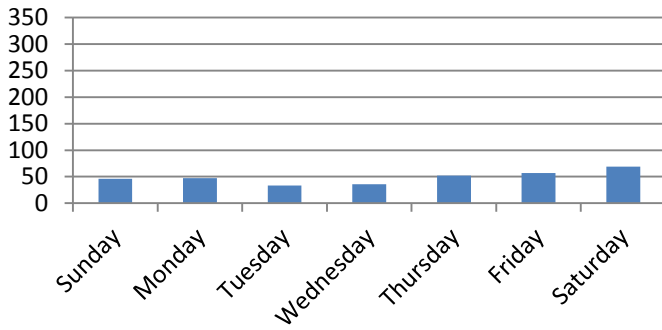
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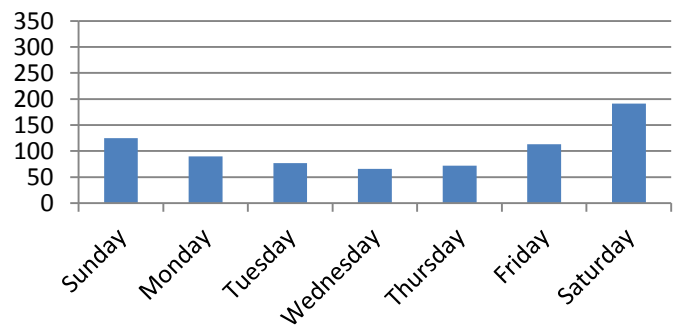
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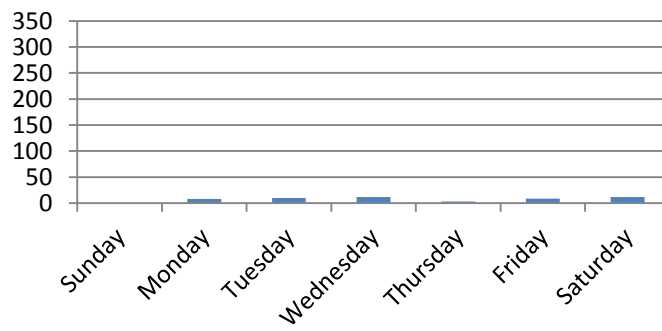
Transportation Center



7th Avenue

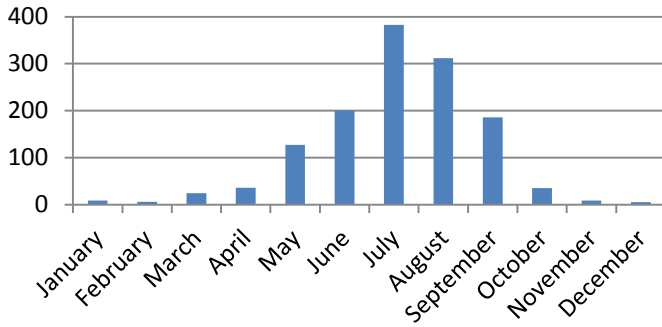


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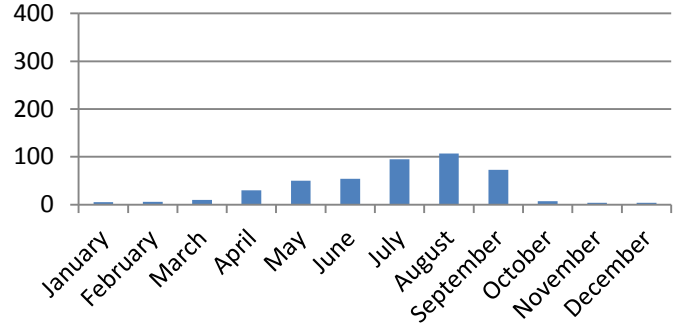


APPENDIX C: Individual Station Rentals by Month

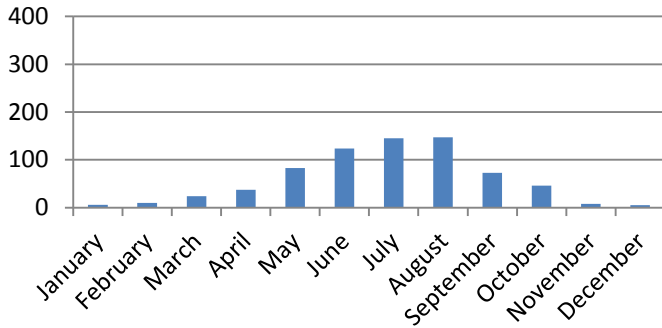
Convention Hall



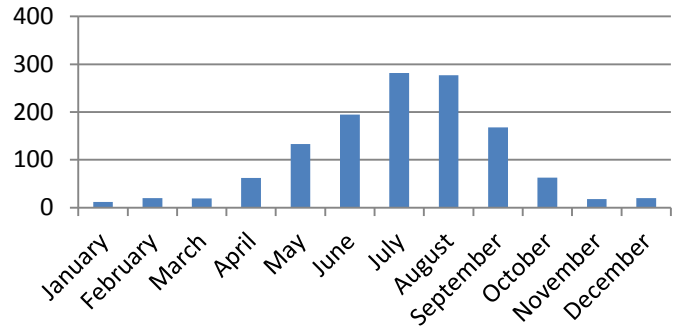
Stone Pony



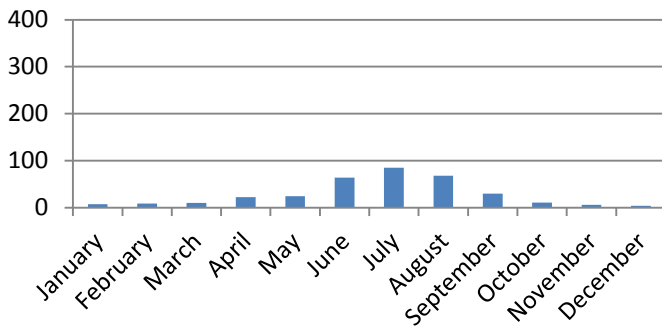
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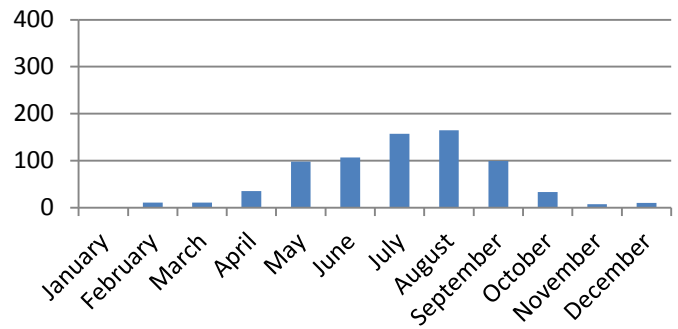
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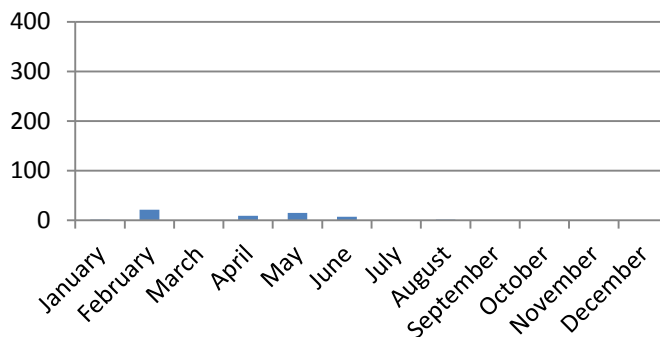
Transportation Center



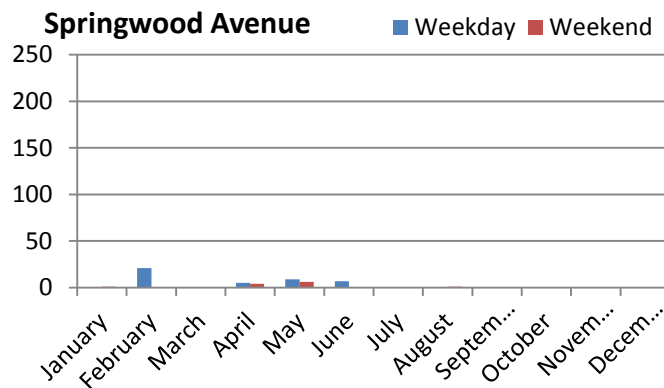
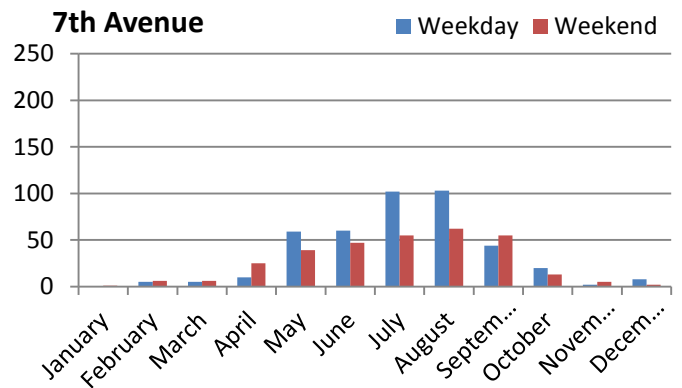
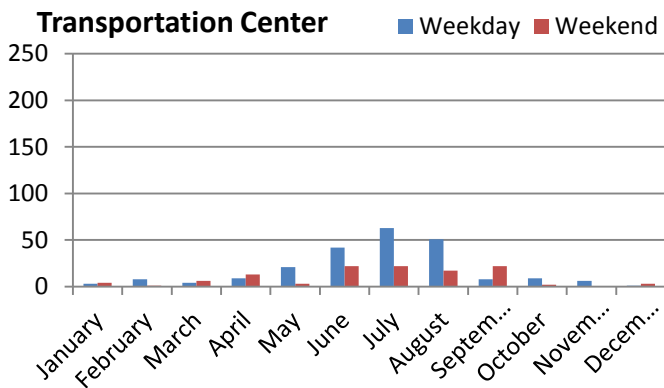
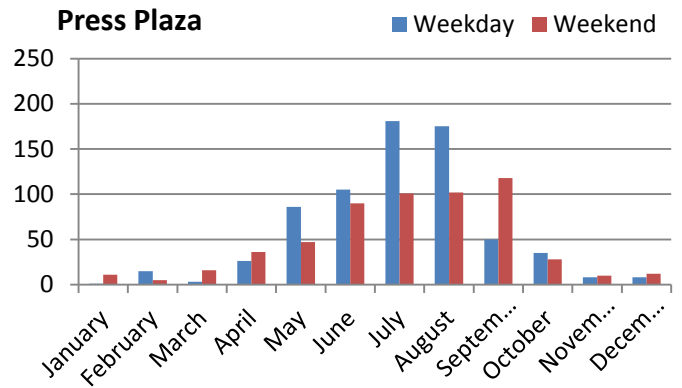
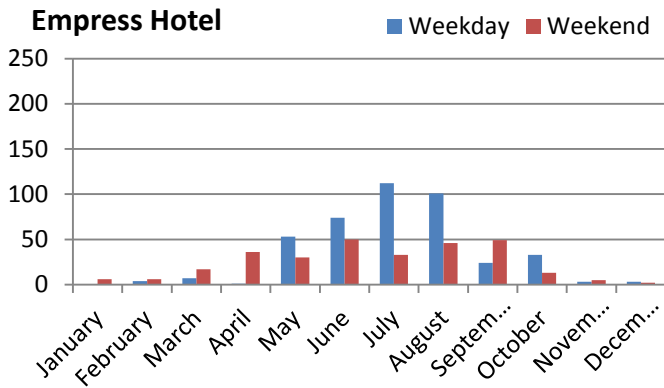
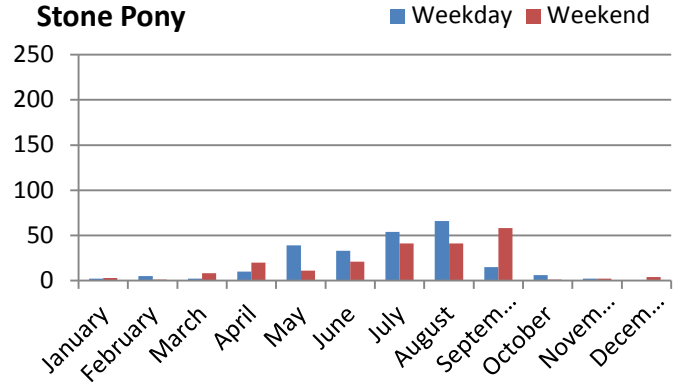
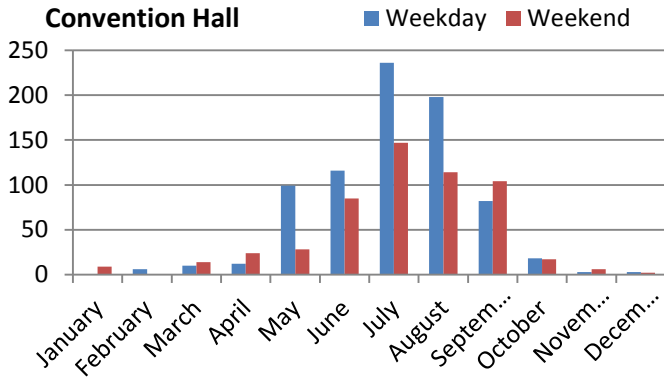
7th Avenue



Springwood Avenue

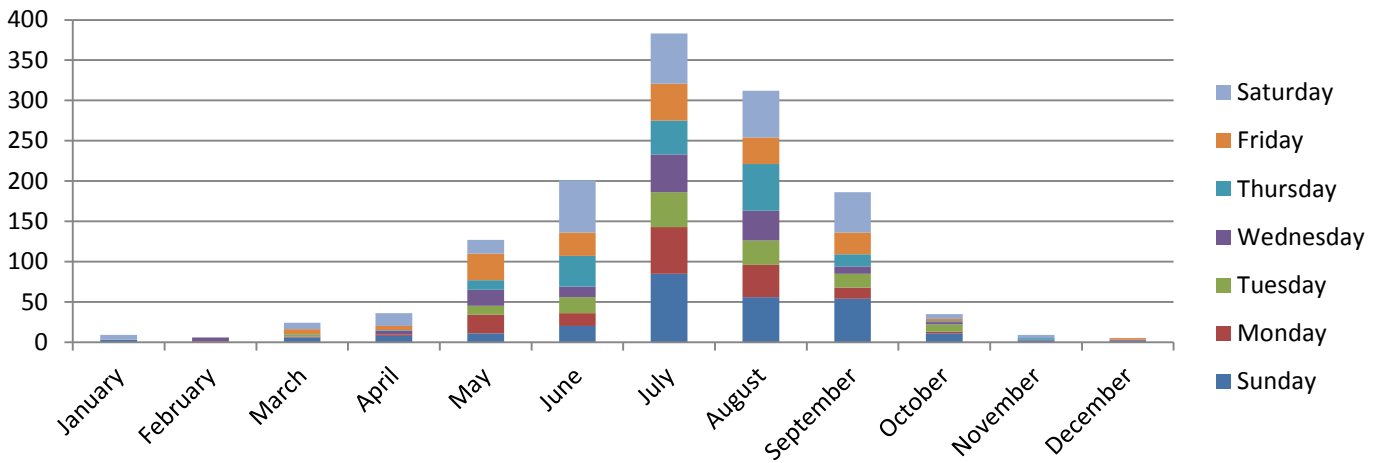


APPENDIX D: Individual Station Rentals by Time of Week and Month

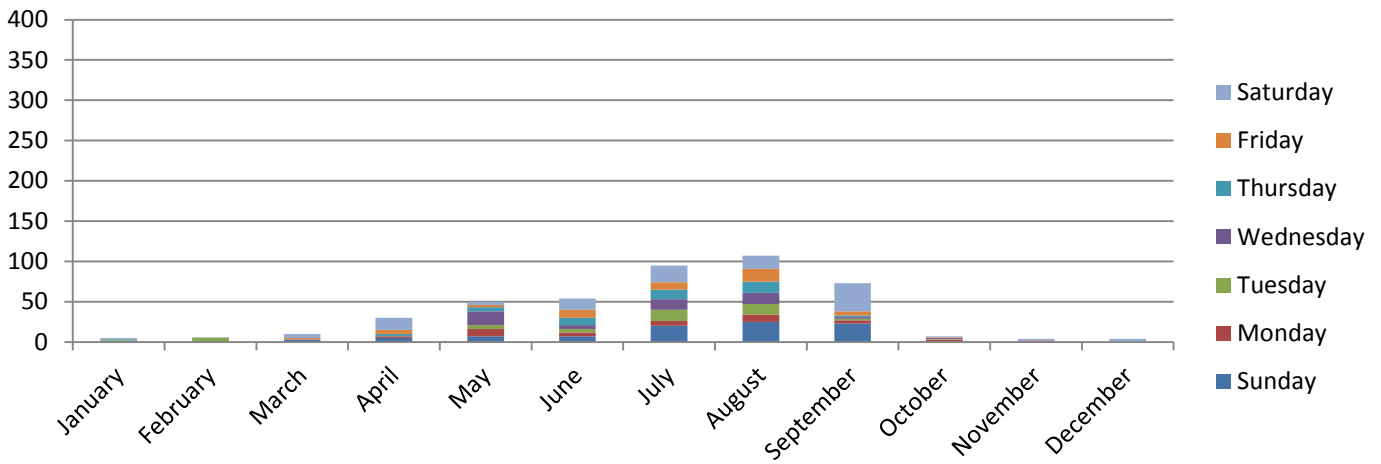


APPENDIX E: Individual Station Rentals by Day of Month

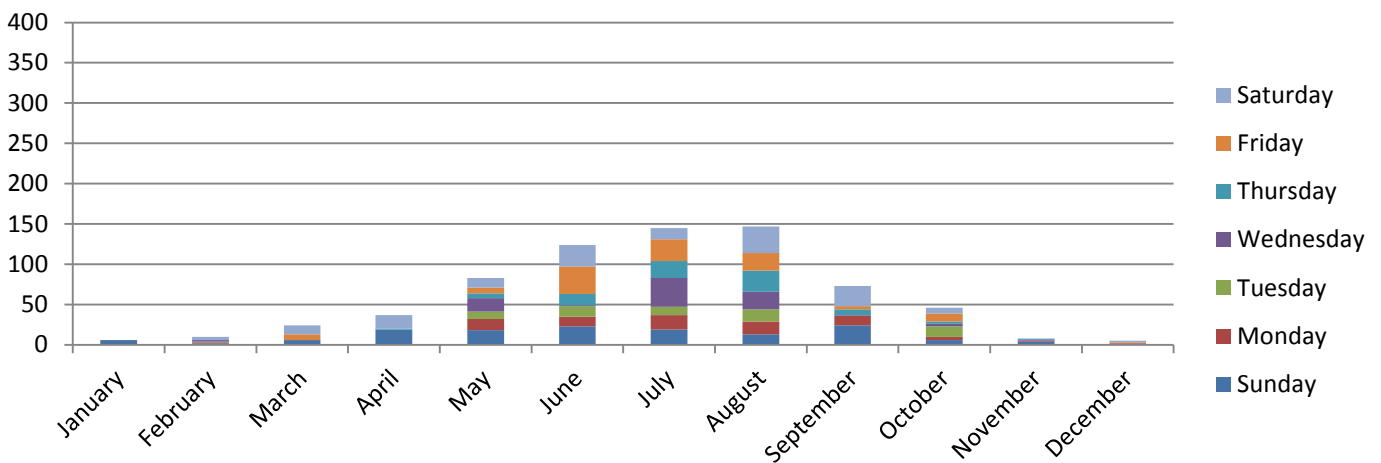
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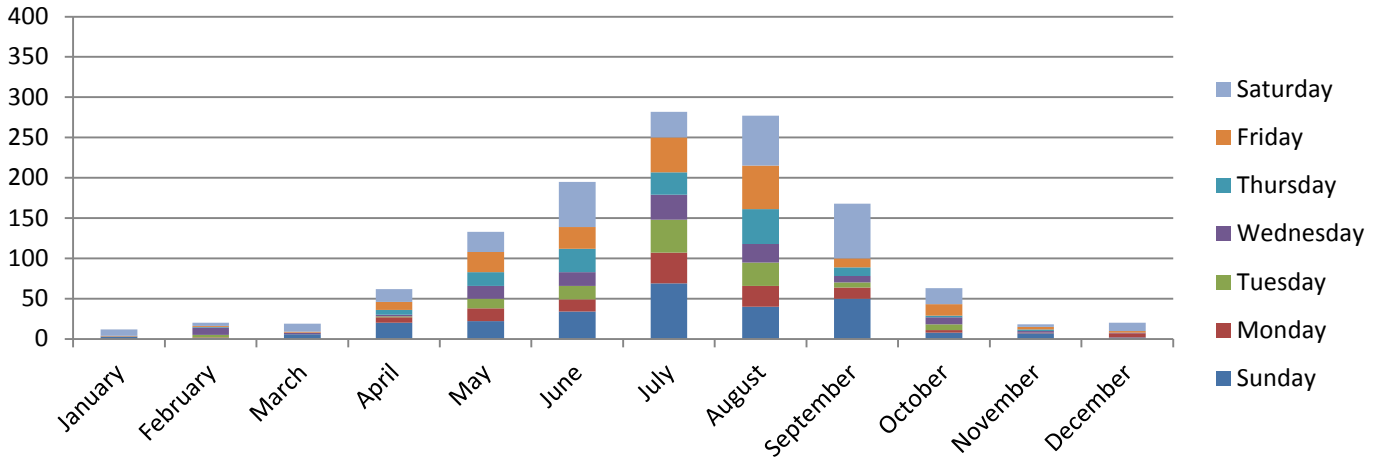
Stone Pony



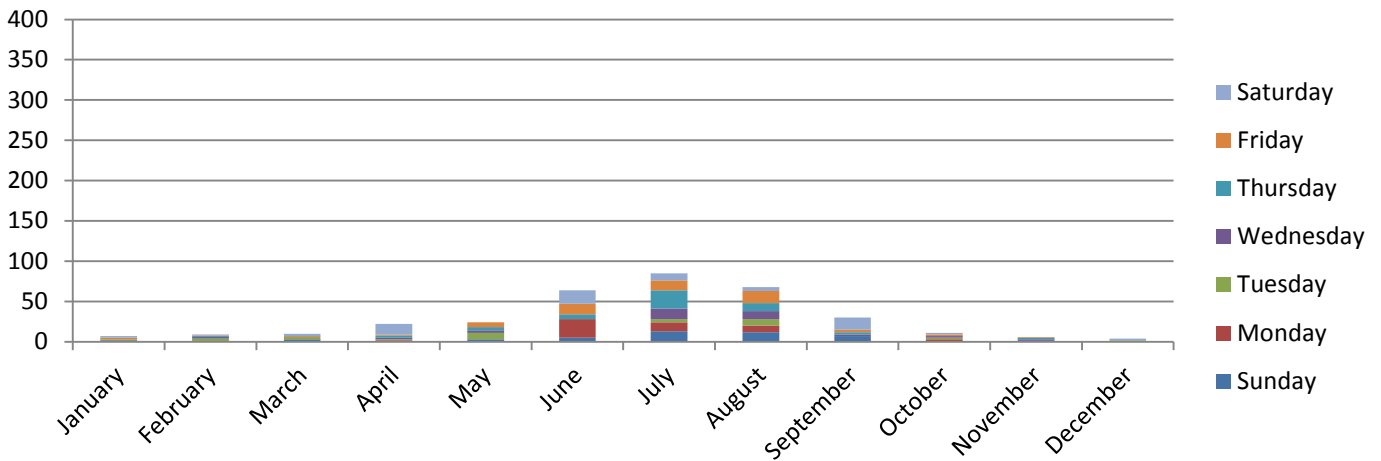
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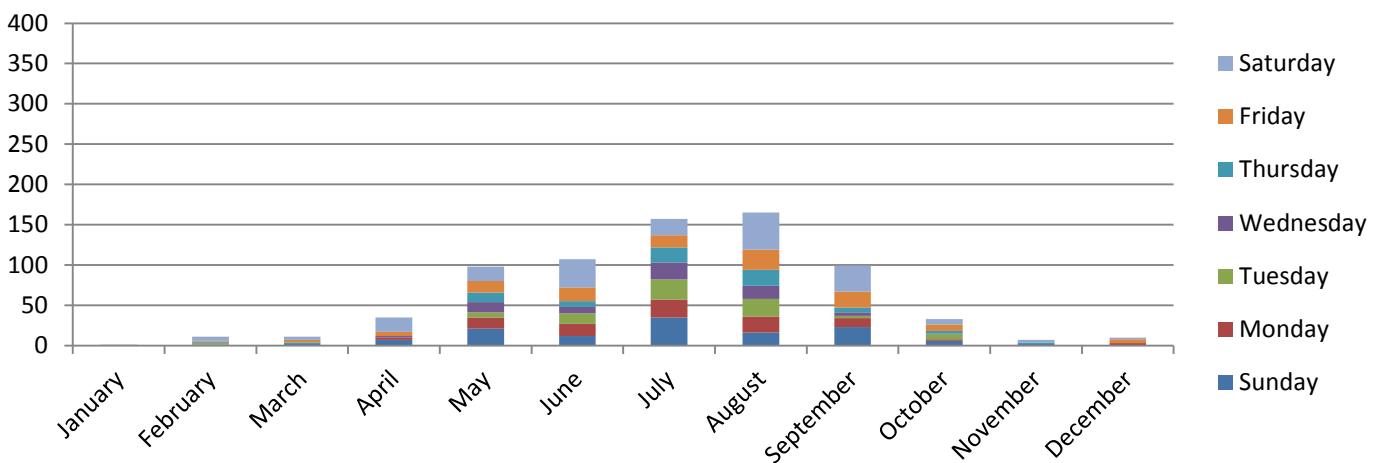
Press Plaza



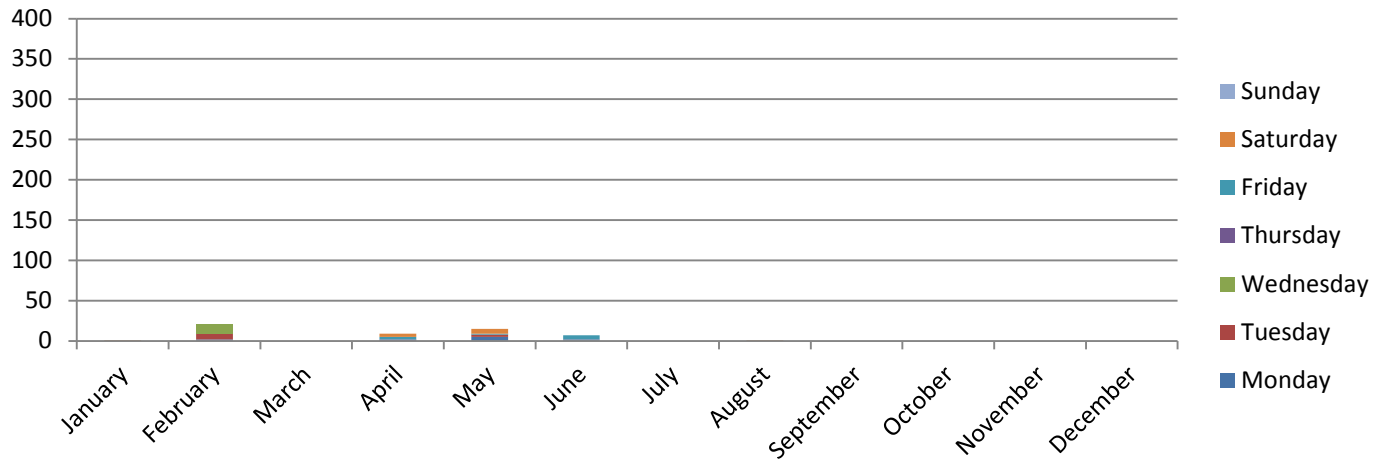
Transportation Center



7th Avenue

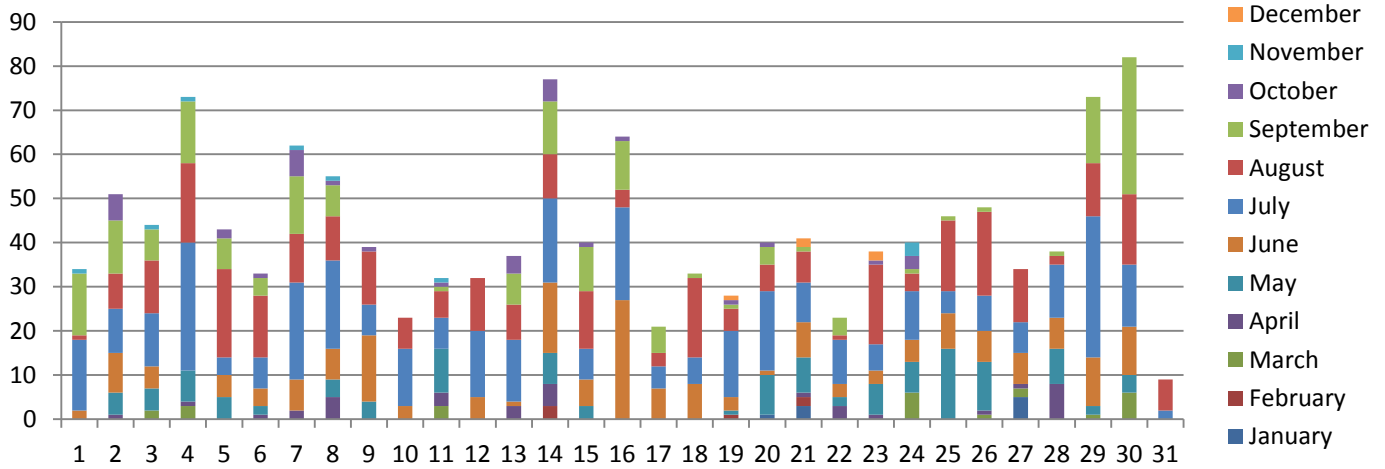


Springwood Avenue

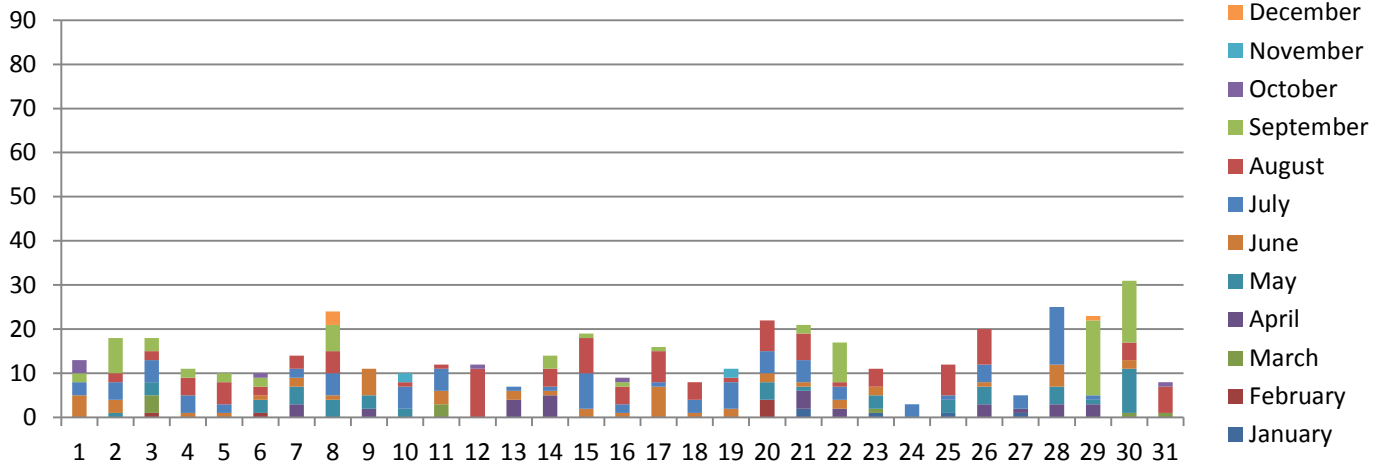


APPENDIX F: Individual Station Rentals by Date

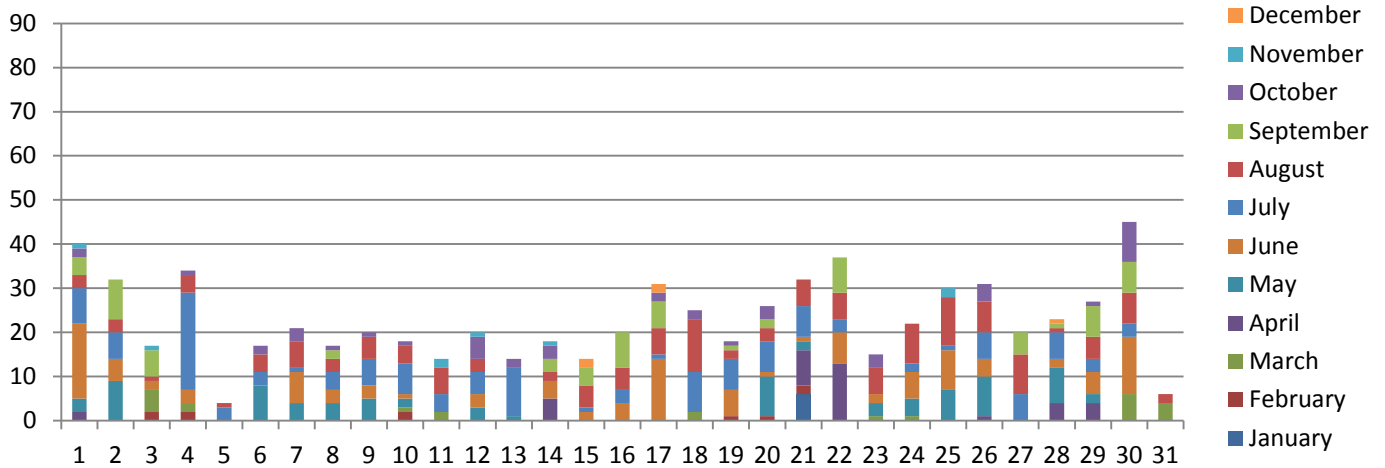
Convention Hall



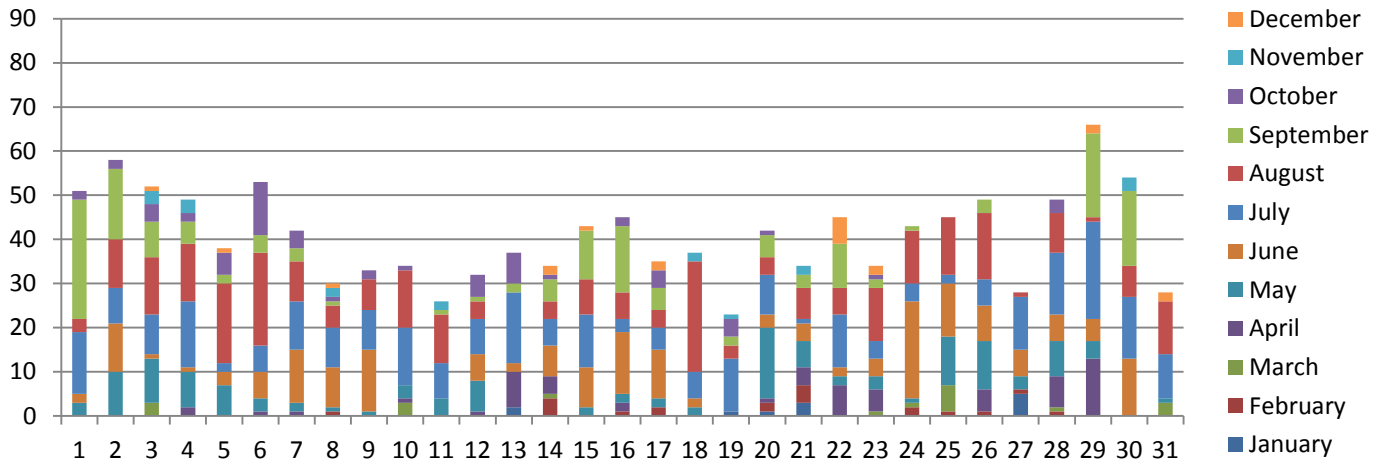
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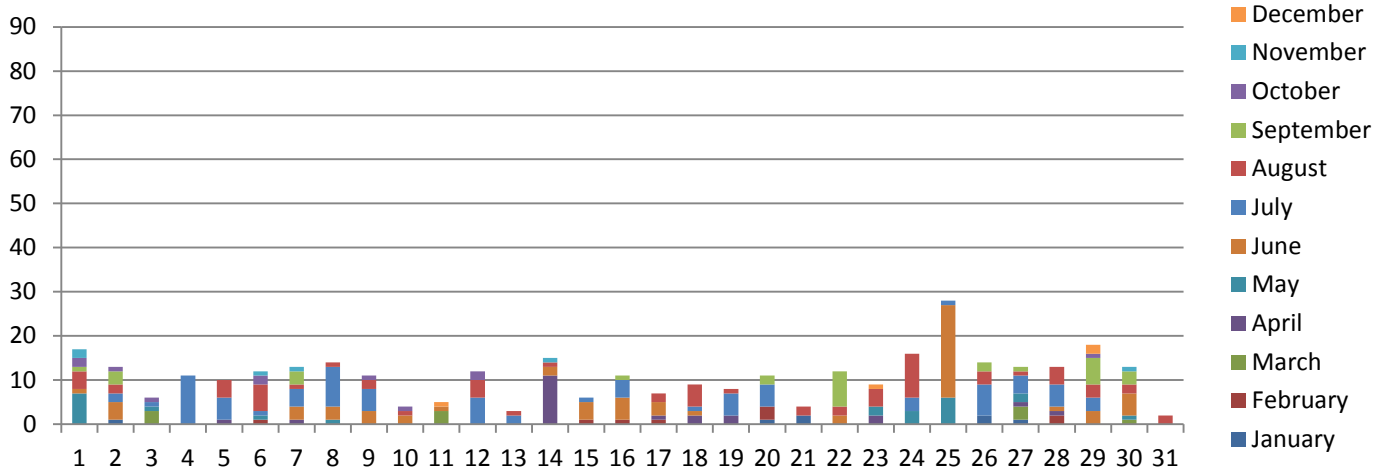
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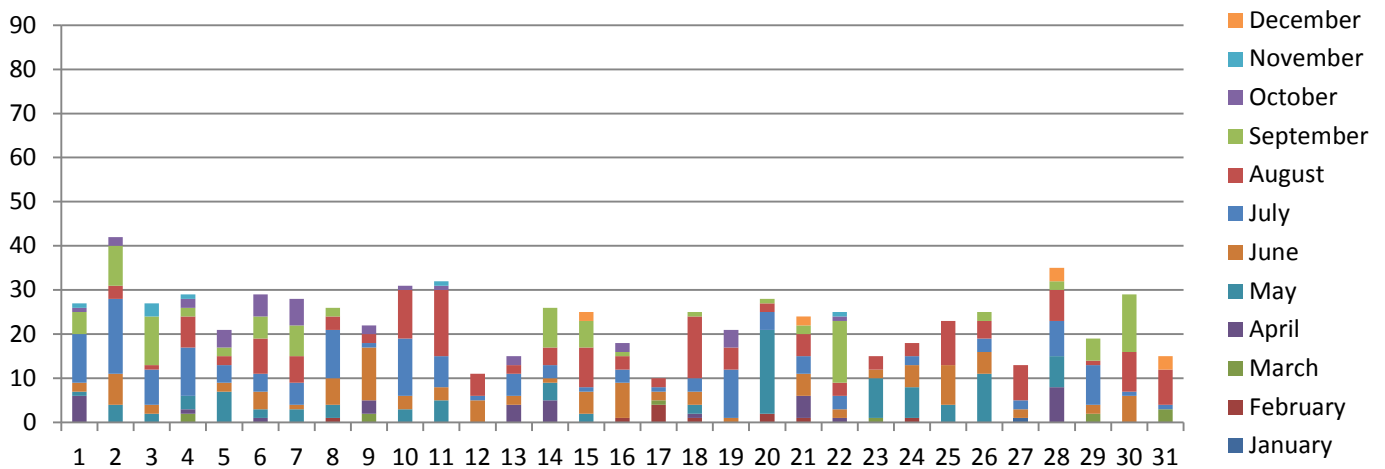
Press Plaza



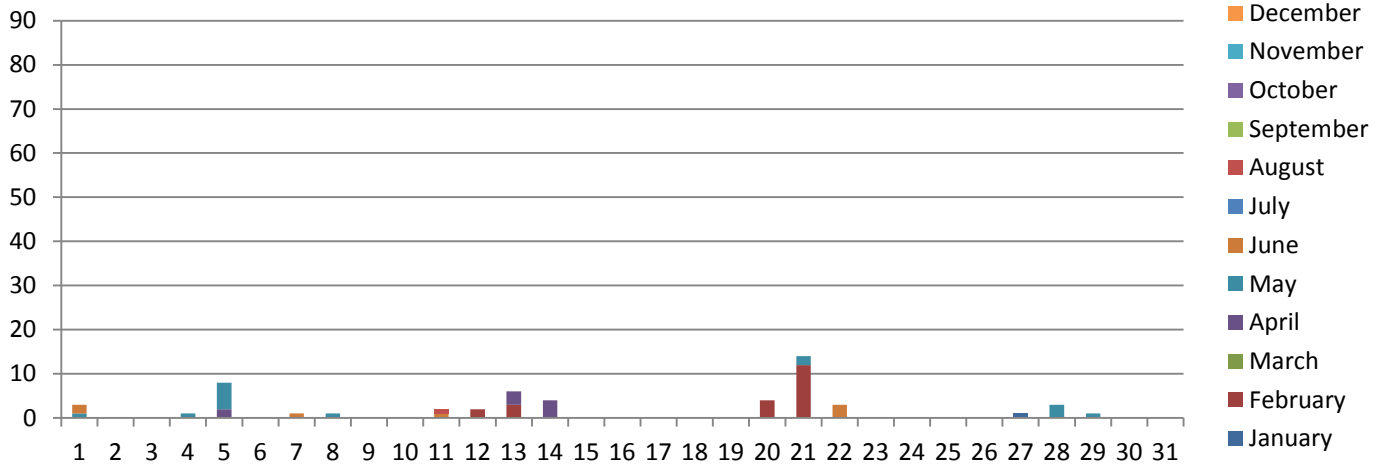
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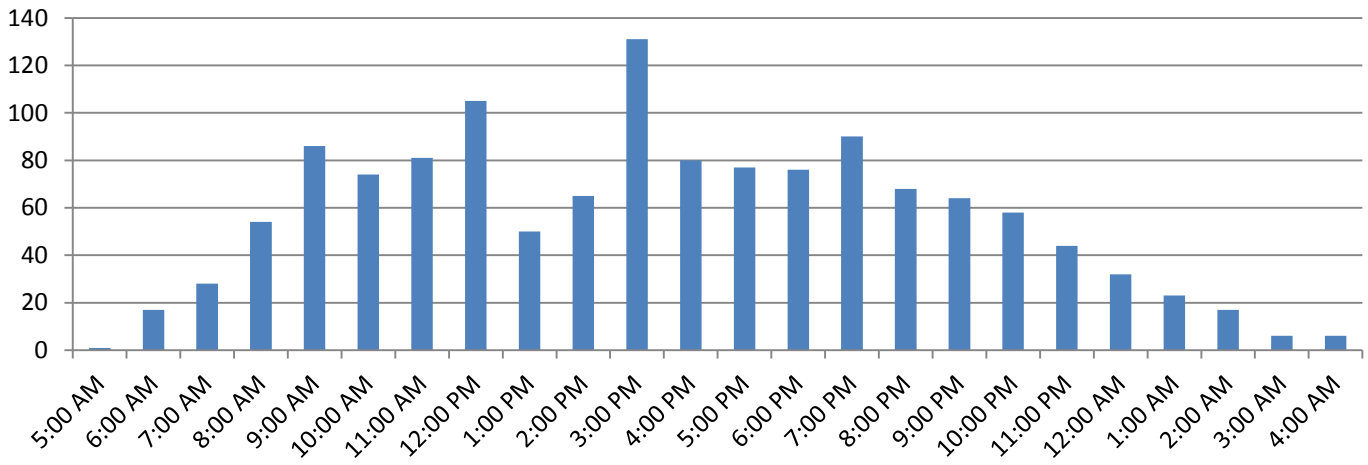


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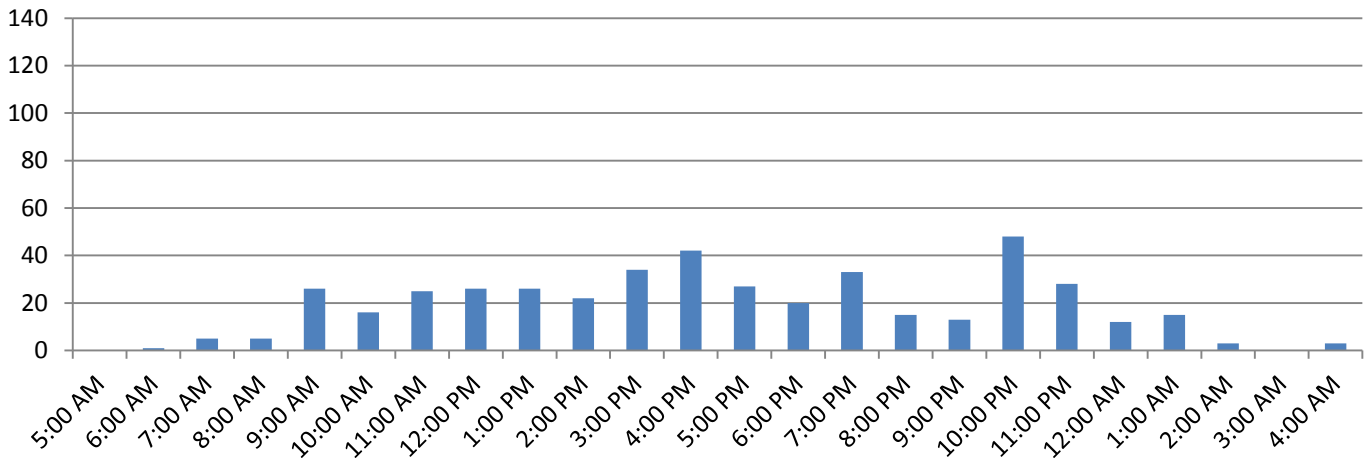


APPENDIX G: Individual Station Rentals by Time of Day (Hourly)

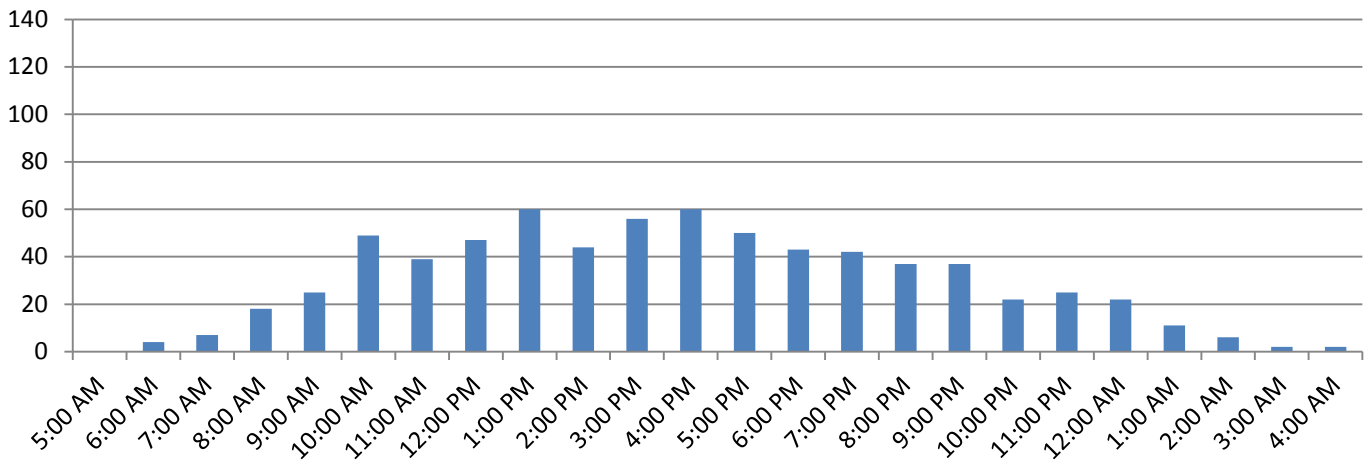
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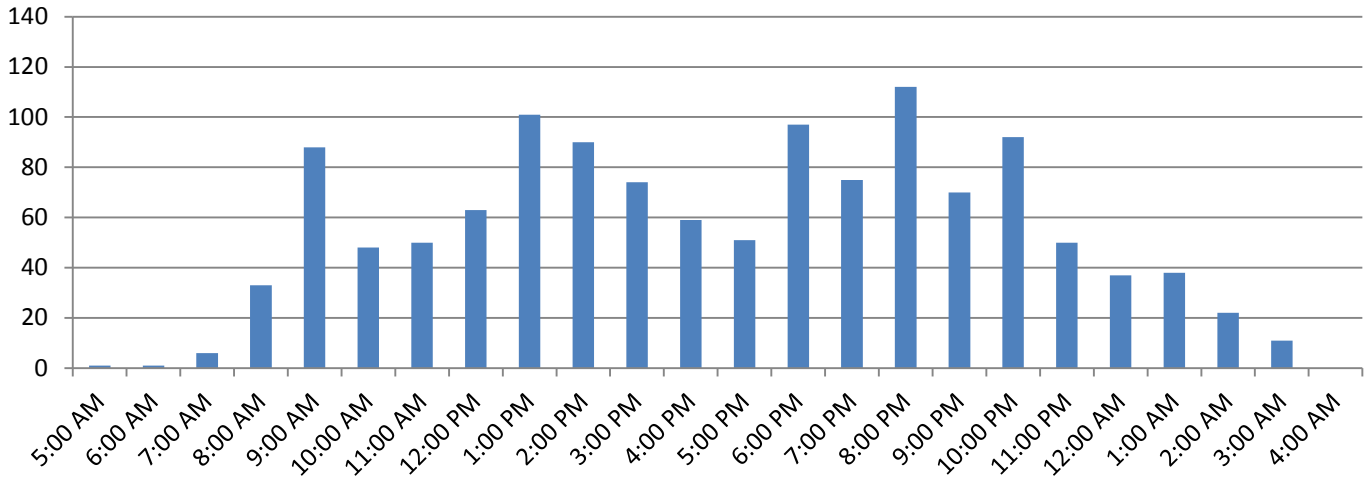
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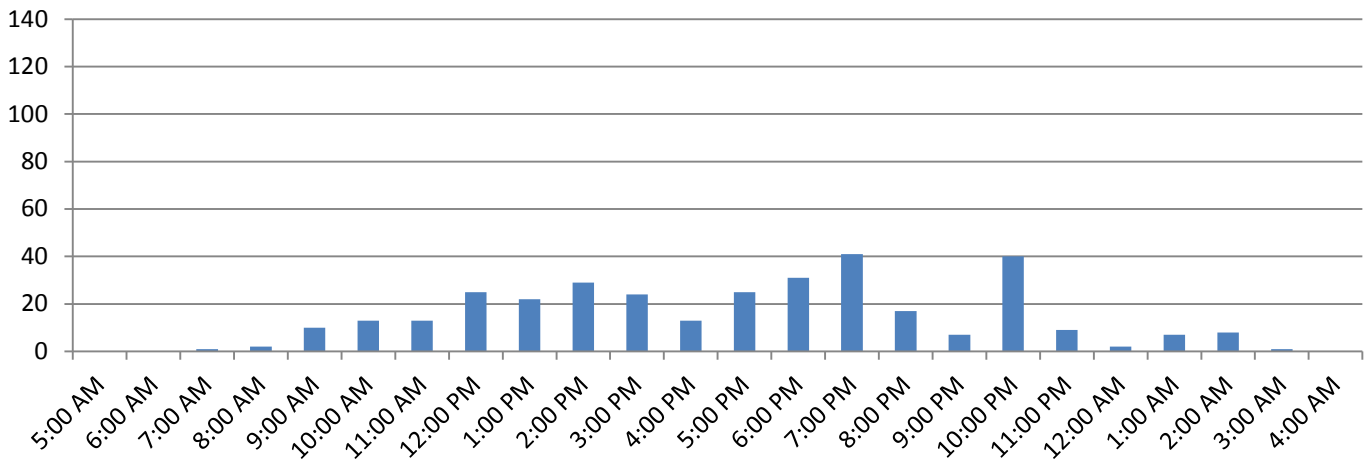
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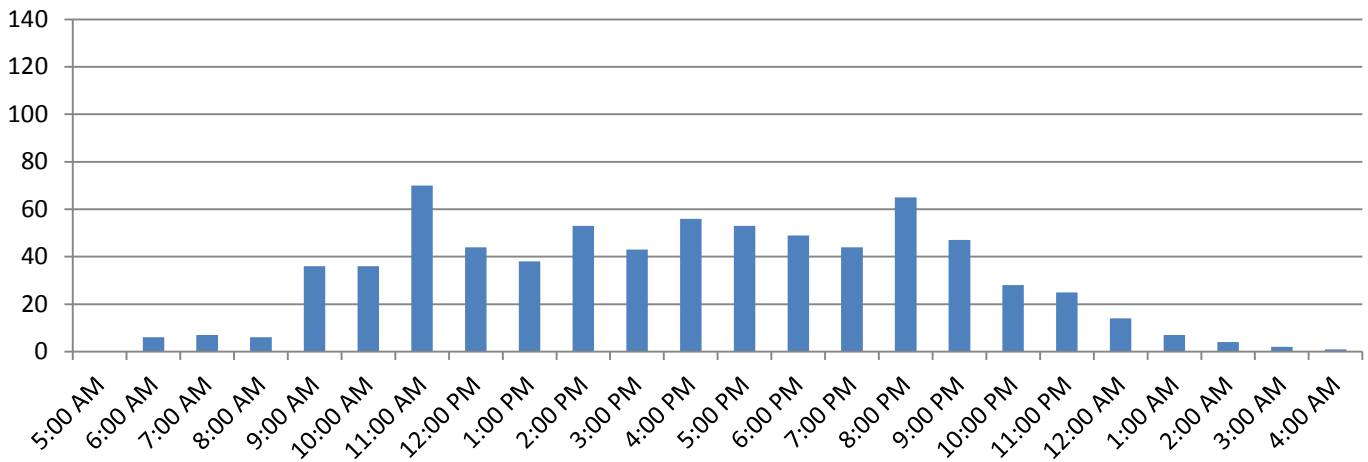
Press Plaza



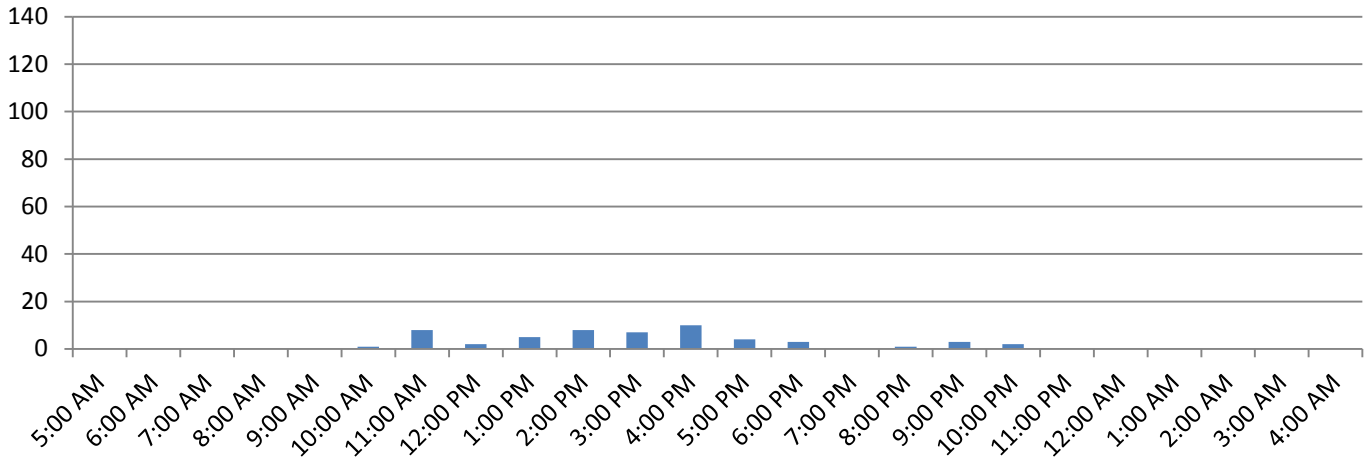
Transportation Center



7th Avenue

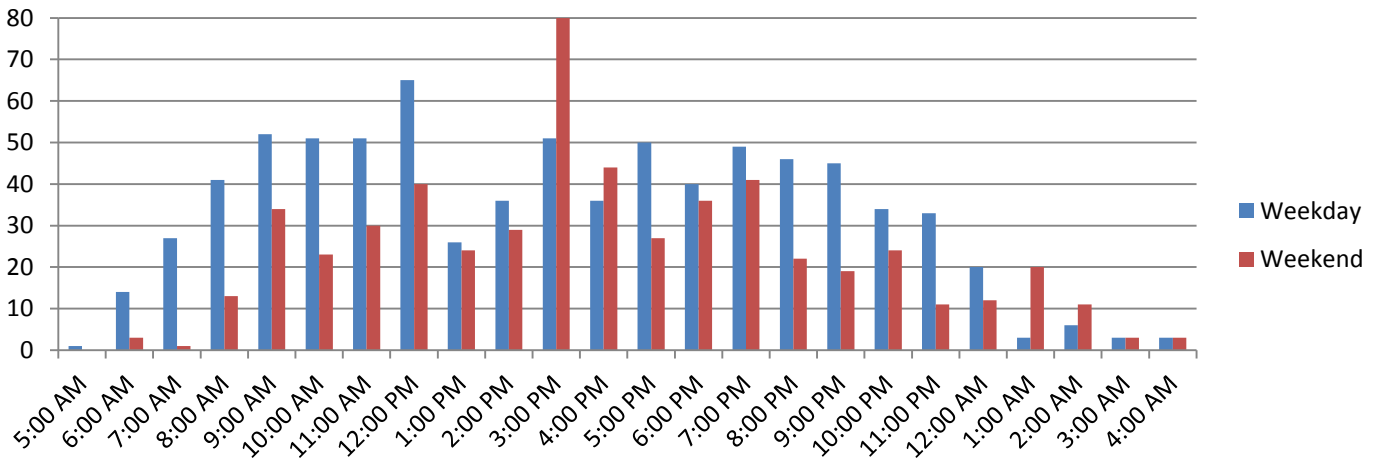


Springwood Avenue

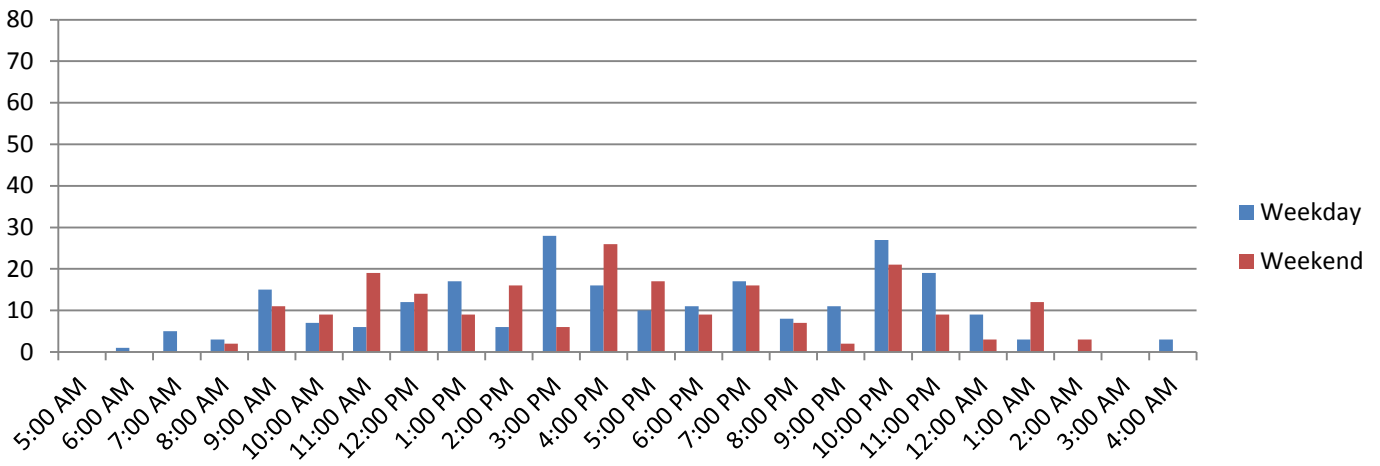


APPENDIX H: Individual Station Weekday vs. Weekend Rentals (Hourly)

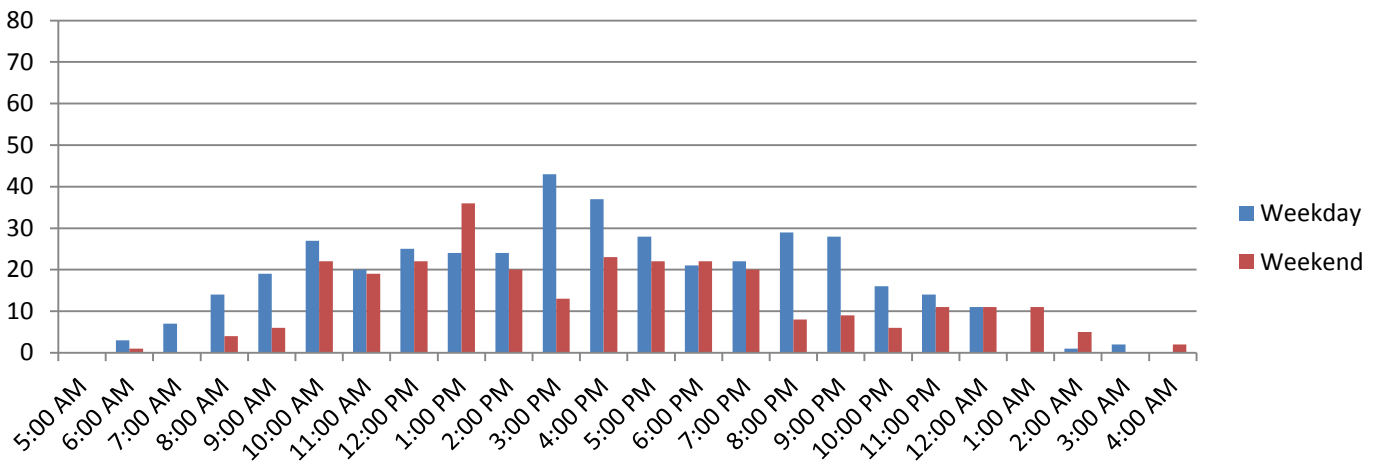
Convention Hall



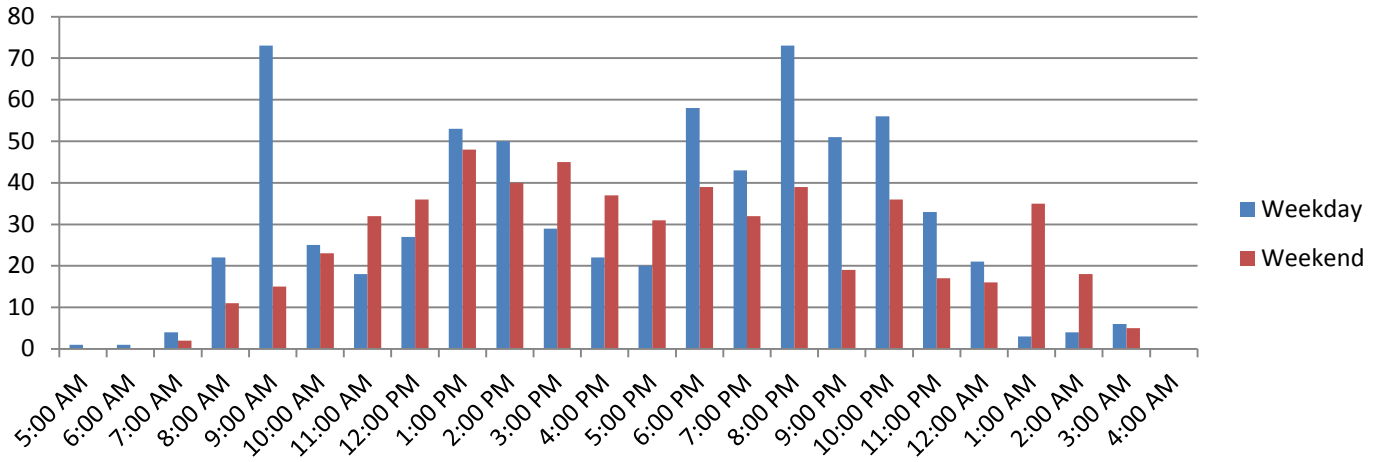
Stone Pony



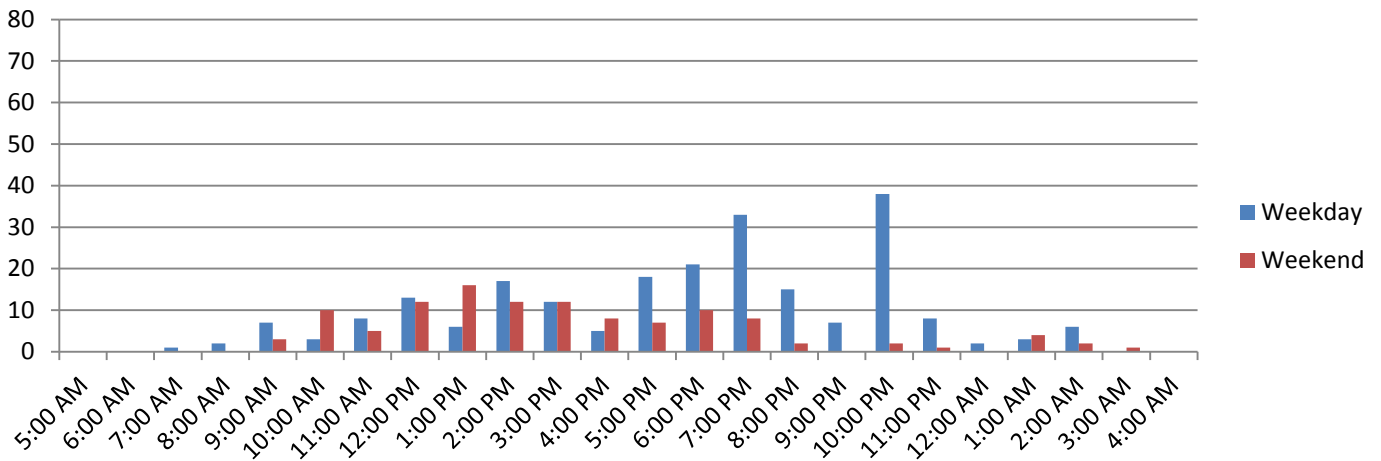
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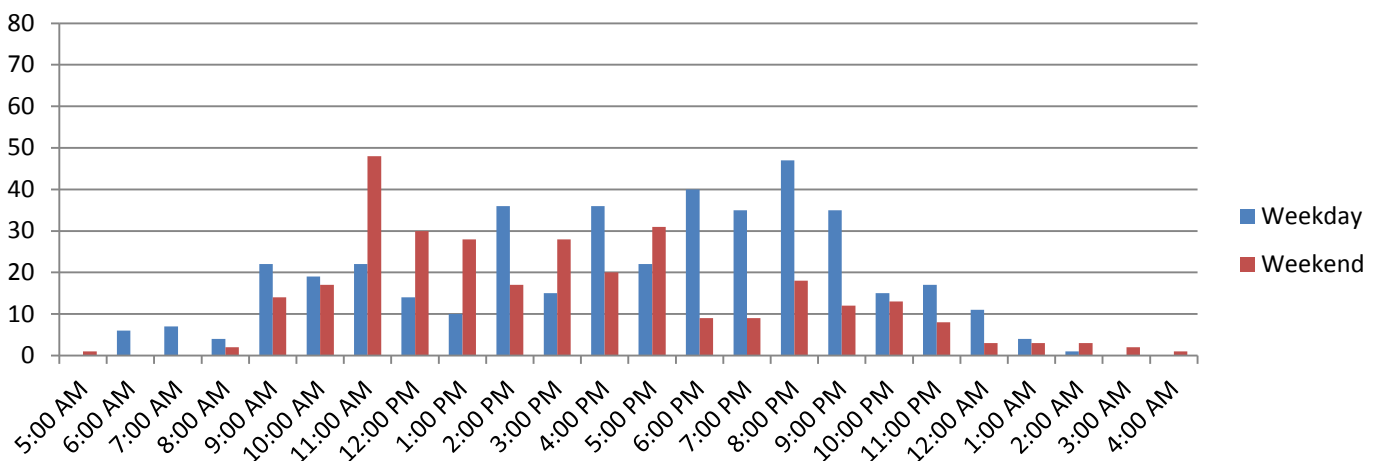
Press Plaza



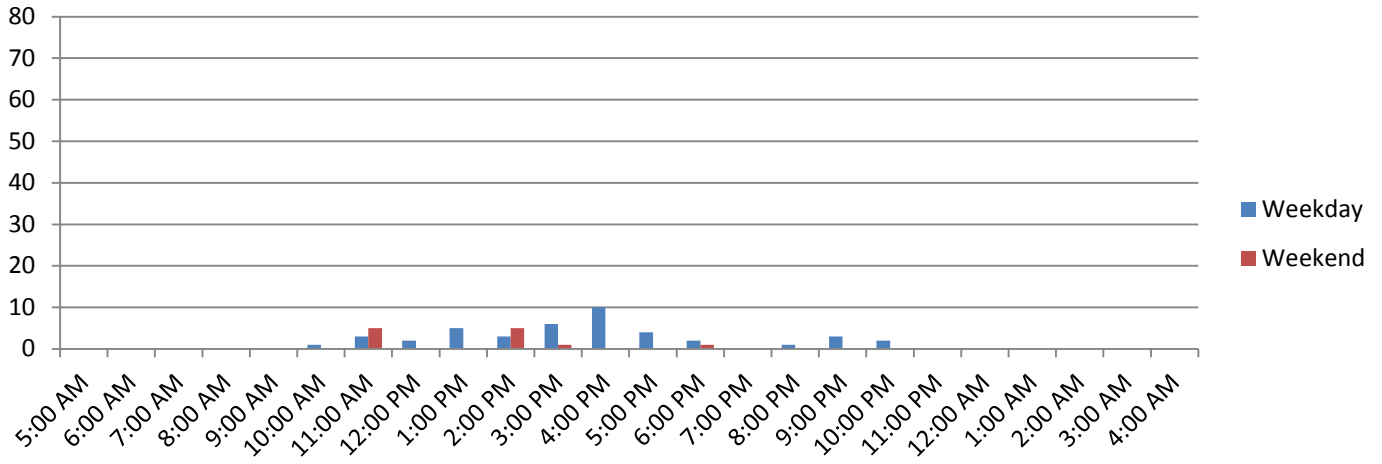
Transportation Center



7th Avenue

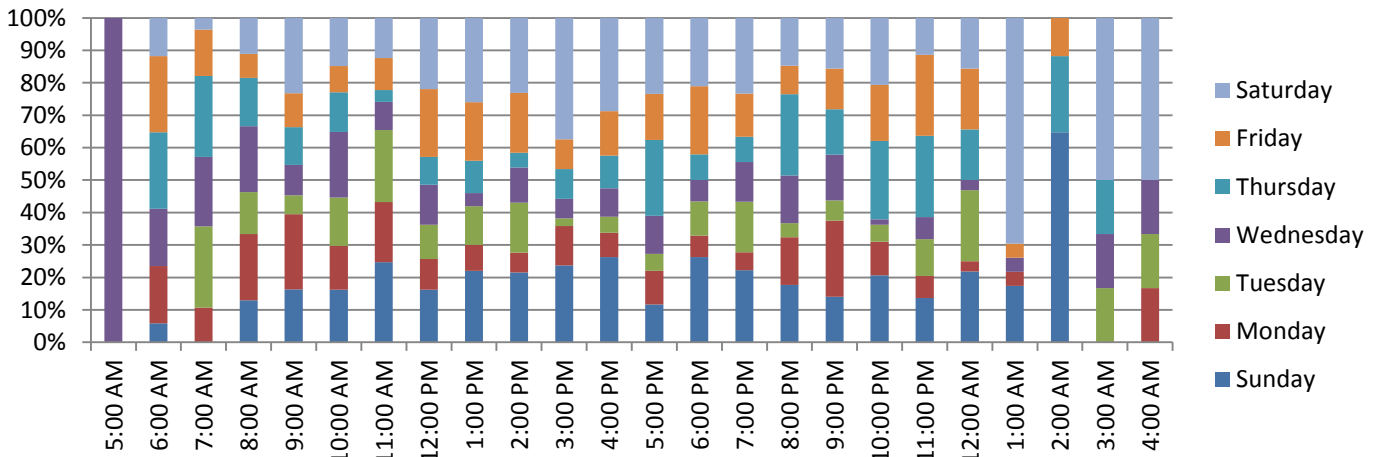


Springwood Avenue

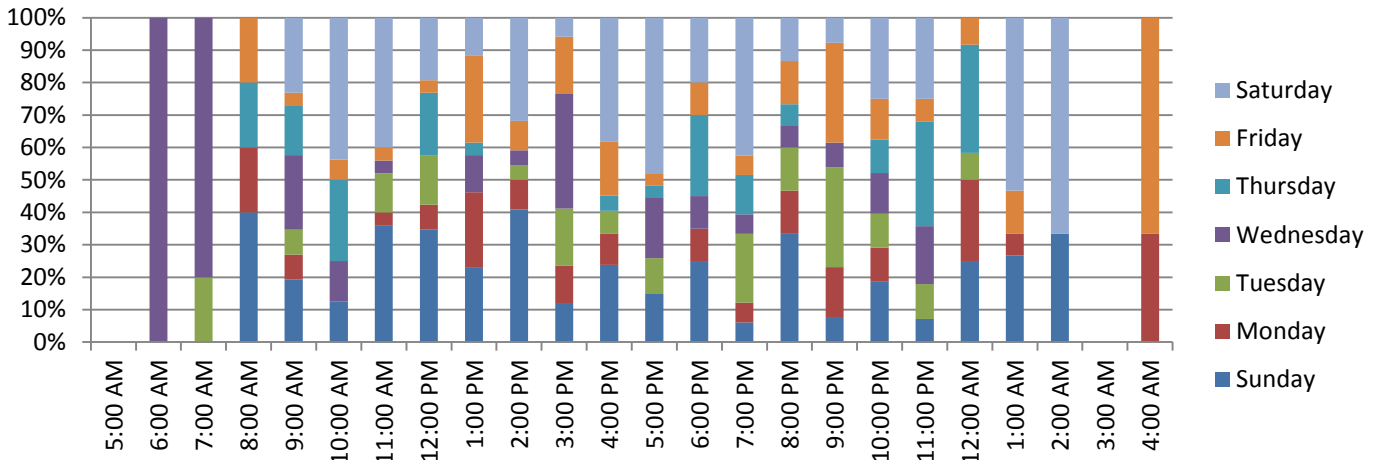


APPENDIX I: Individual Station Rentals by Hour of Day

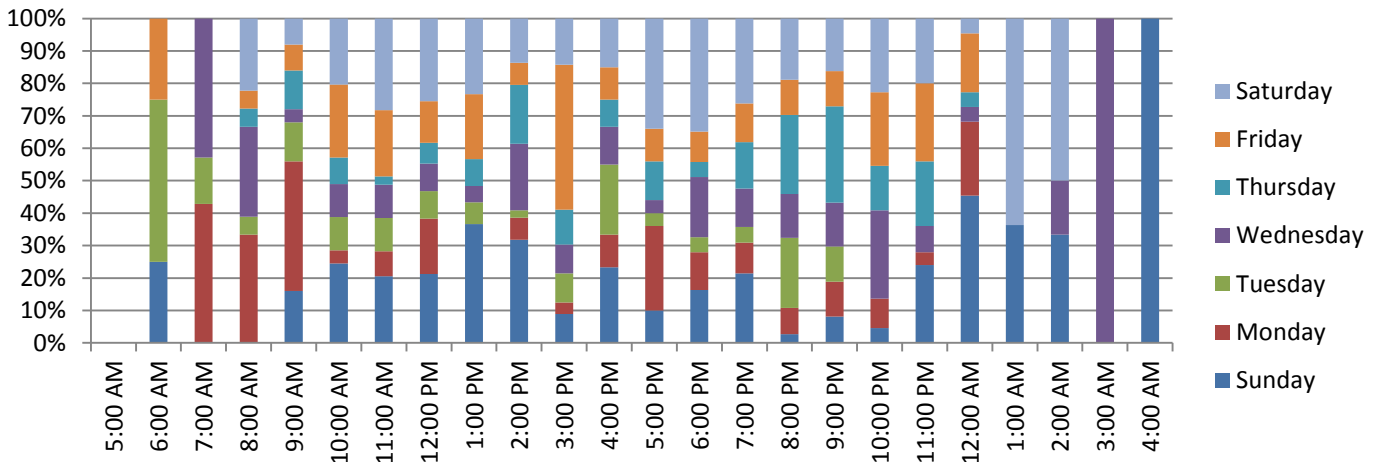
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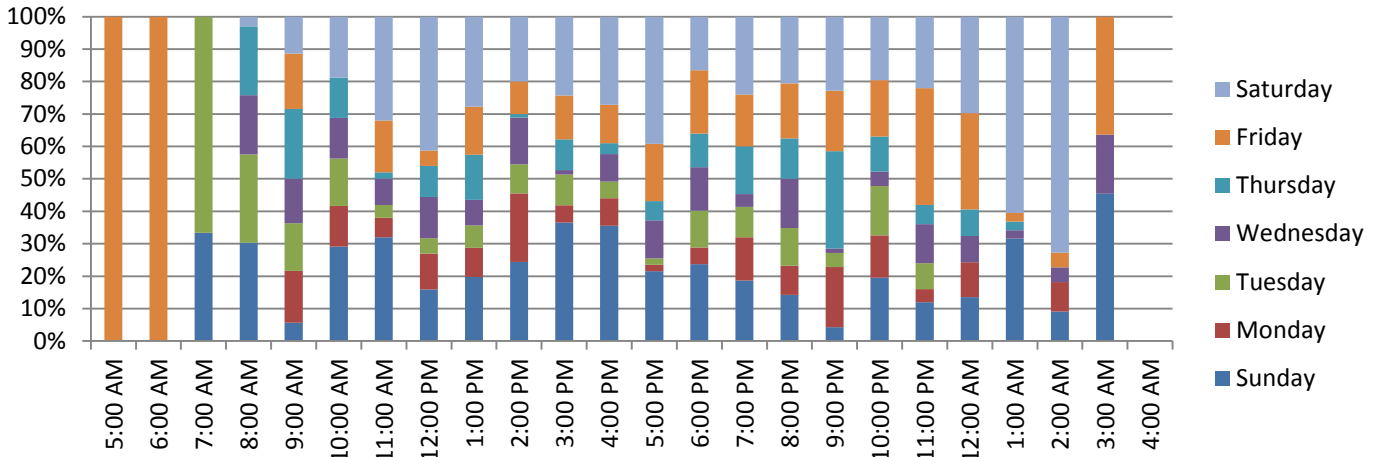
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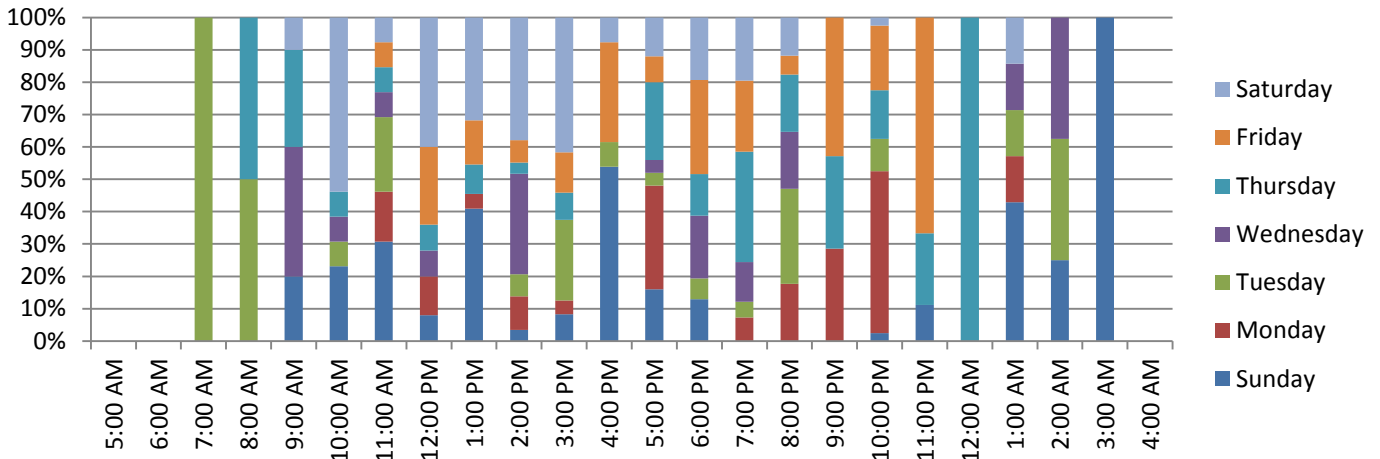
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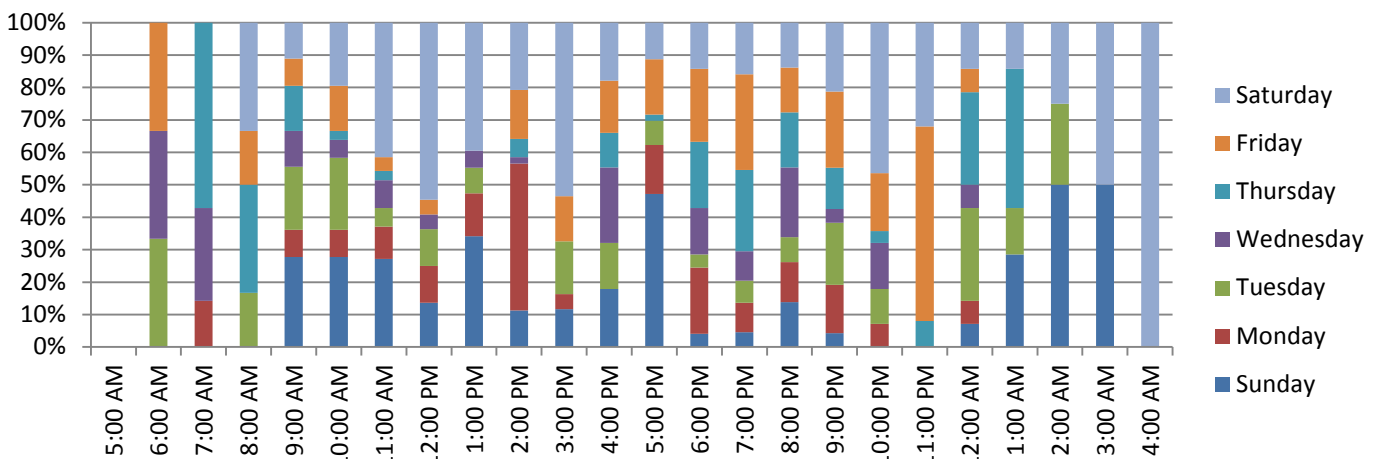
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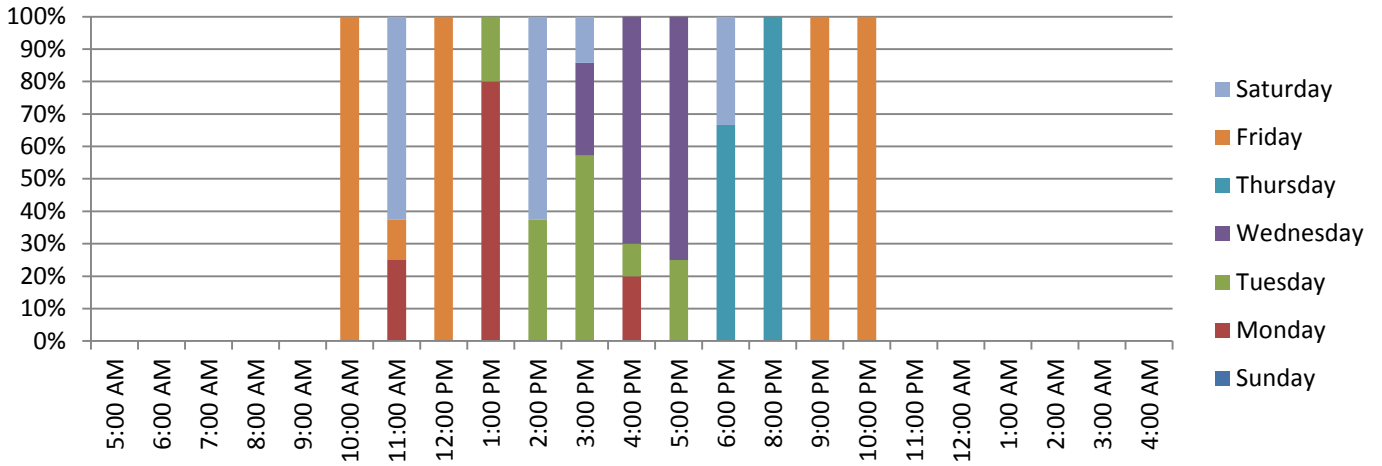
Transportation Center



7th Avenue

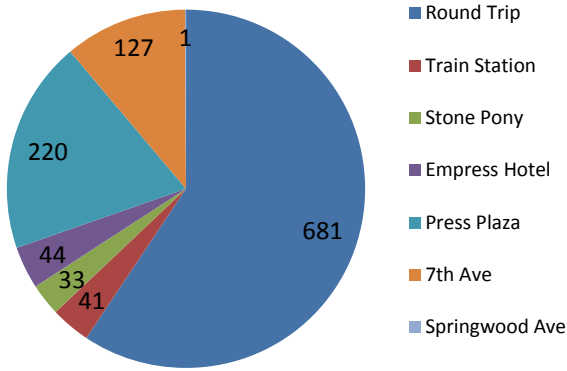


Springwood Avenue

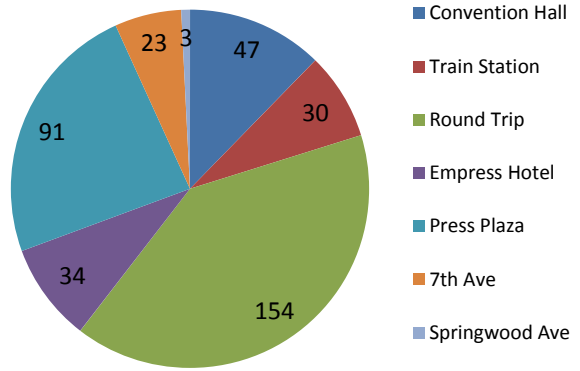


APPENDIX J: Individual Station Rental Destinations

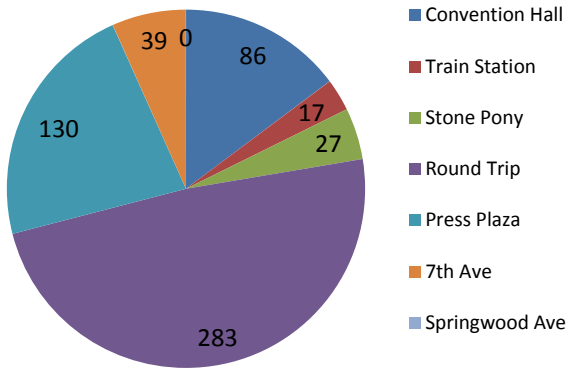
Convention Hall



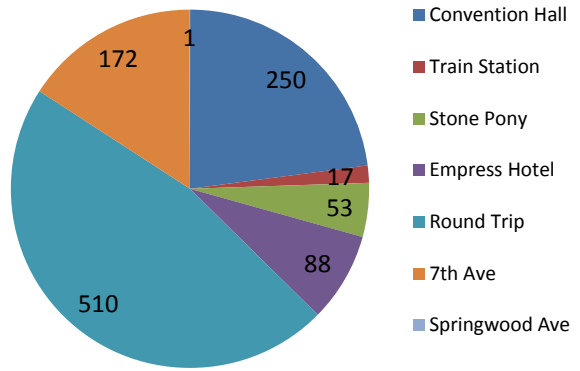
Stone Pony



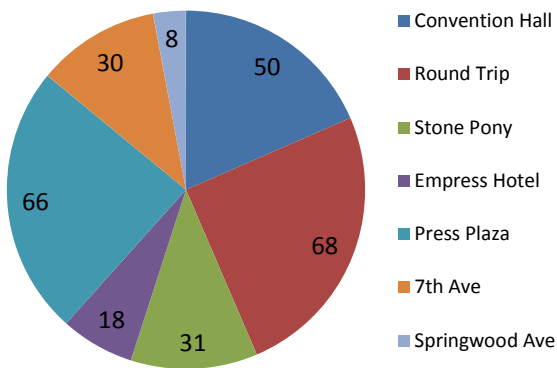
Empress Hotel



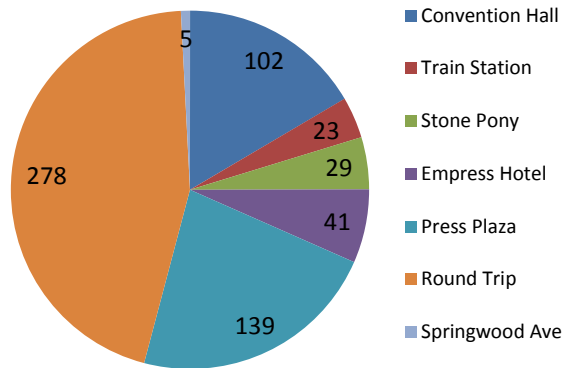
Press Plaza



Transportation Center



7th Avenue



Springwood Avenue

