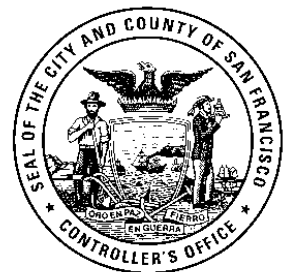
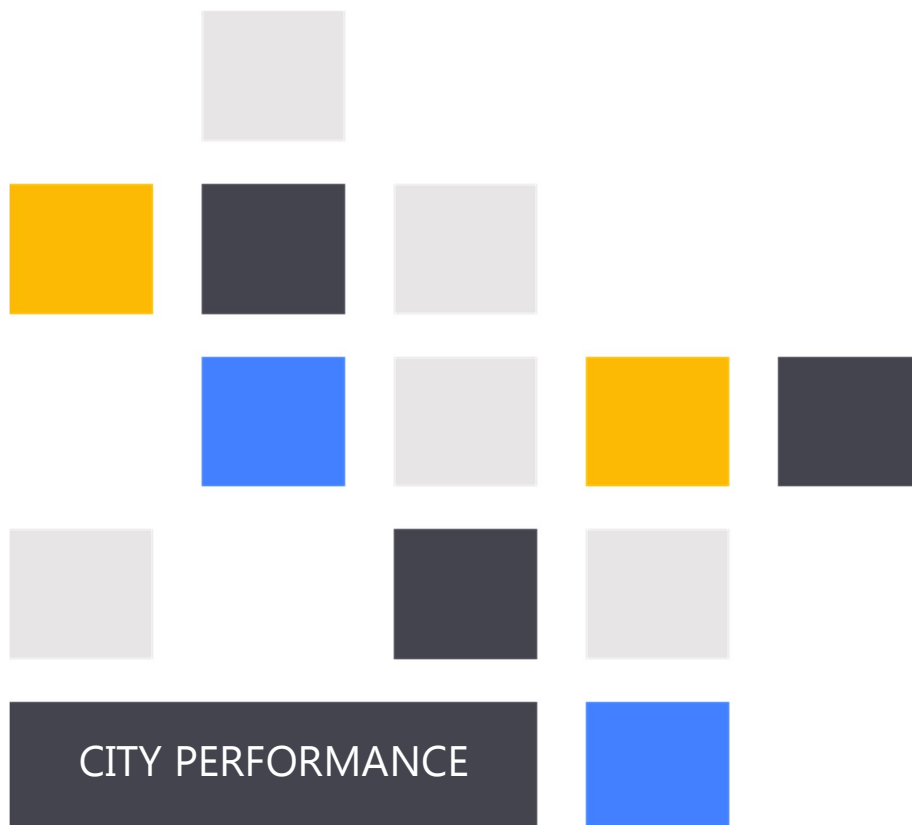


San Francisco Public Library Patron Use Analysis

Fiscal Year 2017-18

This report analyzes Library open hours system-wide and describes patterns of visitor traffic and computer use during open hours across all days of the week at all 27 branch libraries and the Main Library. Overall, while the current open hours are 21 percent above the minimum required, significant gaps in coverage contribute to busy days and times. Library staff and commissioners should consider addition or reallocation of open hours to better serve patrons.



January 30, 2018

City & County Of San Francisco
Office of the Controller
City Services Auditor

About City Performance

The City Services Auditor (CSA) was created in the Office of the Controller through an amendment to the San Francisco City Charter that was approved by voters in November 2003. Within CSA, City Performance ensures the City's financial integrity and promotes efficient, effective, and accountable government.

City Performance Goals:

- City departments make transparent, data-driven decisions in policy development and operational management.
- City departments align programming with resources for greater efficiency and impact.
- City departments have the tools they need to innovate, test, and learn.

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Executive Summary

The San Francisco City Charter (Charter) requires that the San Francisco Public Library (Library) maintain a minimum of 1,211 system-wide service hours per week, conduct a comprehensive assessment of needs to modify service hours as appropriate at least once every five years, and establish a community input process to provide feedback for determining service hours, including a mandated public hearing in each supervisorial district. To support this assessment, the City Performance unit of the Controller's Office (City Performance) analyzed existing open hours across the Library system as well as visitor traffic and computer login data for all open hours at each location.

FINDINGS

- **The Library exceeds the minimum number of required open hours.** The Charter requires a minimum of 1,211 open hours, and the current system-wide total of 1,460 open hours is approximately 21 percent above this floor.
- **Overall hours coverage varies little between branches, despite large variations in visitor traffic.** All branches are open for either 50 or 55 hours, despite large variations in average hourly visitor traffic, and the Library could likely better serve more patrons by either reallocating existing hours or by prioritizing new hours at the busier branches.
- **Busy hours at the start or end of the day suggest latent demand.** The opening hour is often busy for many libraries, especially when that opening hour is later than 10 a.m. Similarly, the closing hour is often busy on days when a library closes at 5 or 6 p.m. compared to days when it closes later in the evening. Hours with heavy use at the start or end of day suggest latent demand (e.g., patrons waiting for the library to open or rushing to get to the library before it closes) and that patrons would benefit from earlier or later open hours on those days.
- **Gaps in the system-wide open hours footprint likely restrict library use for patrons that work during the regular business day and contribute to busy days and times.** Two-thirds of total system open hours and 85 percent of non-weekend open hours occur during the 9 a.m. to 6 p.m. business day, and no library is open before 9 a.m. While the Library's existing system-wide open hours coverage "footprint" (refer to Figure 5 on p. 14) serves many patrons well, it likely makes it difficult for patrons that work during the business day to visit a library during the week and contributes to busy days and times. For example, all branch libraries are open only four hours on Sundays and five hours on Fridays, and these days have the highest average hourly visitor traffic of the week. Further, no library is open on Monday, Friday or weekend evenings after 6 p.m., and the closing hour on these days is generally busy. Dense use on Fridays and Sundays, and in early evening closing hours, suggests that some patrons are adjusting their schedules to visit the library during open hours and would benefit from expanded

open hours on these days.

- **Evenings after 7 p.m. generally have the lightest use system-wide.** Visitor traffic at most branch libraries drops off substantially after 7 p.m. Although fewer patrons use these later evening hours, these hours likely serve a different patron population than daytime hours. Other times of light use vary from branch to branch.

RECOMMENDATIONS

- **Consider allocating any future additional open hours to specific priority areas.** If the Library devotes staff and budget resources to a further expansion of open hours, prioritizing open hours in the following areas would reduce gaps in system-wide coverage and alleviate high demand on some days and times at specific libraries:
 - **Extend open hours on Sundays and Fridays.** Visitor traffic is consistently high from opening to closing at most libraries on these days, likely due to a combination of high demand and libraries being open fewer hours in the day, and extending opening and closing times on these days would likely benefit the largest number of patrons.
 - **Extend opening and closing times on other days at locations demonstrating latent demand.** Usage is consistently high at the existing 5 p.m. and 6 p.m. closing hours, and many libraries are busy in the opening hour. Extending opening and closing times at some locations would likely alleviate some of this latent demand and would give more choice for library patrons to use a library outside of the existing open hours on more days. The Library should use the visitor traffic and computer login data sheets in Appendix A to support these decisions.
- **Consider reallocating existing open hours within and across branch libraries.** Instead of or in combination with adding more system-wide open hours, the Library could reallocate current open hours to reduce gaps in system-wide coverage and alleviate high demand on some days and times at specific libraries. The Library should use the visitor traffic and computer login data sheets in Appendix A to support these decisions, and should consider geography when reallocating open hours. Specifically, the Library should consider the following:
 - **Reallocate open hours within branches.** The June 2017 open hours expansion included 85 additional open hours at 15 branch libraries, all within the existing system-wide open hours coverage footprint. The open hours at these and other branches could potentially be reallocated to both address high-demand times and expand the existing coverage footprint.
 - **Reallocate open hours from some low-traffic branches to high-traffic branches or the Main Library.** The Main Library and most of the busiest branches received no additional open hours in June 2017, and the Library should consider reallocating some open hours to these libraries to alleviate high demand and potentially expand the coverage footprint. As part of this

reallocation, the Library should consider expanding branch open hours beyond 55 per week at some of the busiest libraries in the system.

- **Conduct further analysis into usage patterns.** Upcoming infrastructure improvements will allow the Library to analyze the effects of changing hours on patron usage in nearly real time. The Library should use this data to further analyze patron usage to better enable the Library to effectively add or reallocate open hours:
 - **Monitor the effect on visitor traffic of the June 2017 open hours expansion.** The June 2017 expanded open hours likely alleviated some of the high demand at some locations, and the Library should consider the effect of these new open hours especially where open hours were added adjacent to high-use hours. Any further changes to open hours in 2018 and beyond should be monitored to determine whether they are having the intended effect.
 - **Pilot hours outside the coverage window.** The current data allows for insight about usage within and at the edges of the current coverage footprint, but is less useful for gauging potential demand further outside existing hours. Piloting longer hours, especially before the business day, would give insight into whether those times might better serve some patrons. Similarly, the Library should review usage patterns as part of any pilot reallocation of open hours designed to reduce coverage gaps and expand the system-wide coverage footprint.

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Introduction

The San Francisco Public Library (Library) system consists of the Main Library and 27 branch libraries located throughout the City of San Francisco (City), organized into five geographical districts. The Library is governed by the Library Commission. In 2007, voters reauthorized the Library Preservation Fund, which amends the City Charter to provide a funding baseline for the Library through fiscal year 2023-24 and to require that the Library Commission:

- Maintain a minimum of 1,211 system-wide service hours per week
- Conduct a comprehensive needs assessment at least once every five years to modify service hours as appropriate
- Establish a community input process to provide feedback for determining service hours, including a mandated public hearing in each supervisorial district

The last assessment was conducted in fiscal year 2012-13, and the current assessment must be completed by June 30, 2018. The overall goals of the assessment are to use a data-driven approach to gather information on Library visitors and use, to identify days and times of high and low use at specific library locations, and to position open hours to best serve the needs of the public and their respective communities.

The assessment includes analysis of existing open hours across the Library system and analysis of visitor traffic and computer use at each of the 28 library locations. The assessment also includes a separate analysis of survey results from a patron survey and a Library staff survey, to be provided in a report prepared by the City's contracted professional survey consultant.

Methodology

City Performance compiled and analyzed Library data on visitor traffic and computer logins to present a composite view of library use at each hour for each library location.

Visitor Traffic Analysis

The Library collected visitor traffic data over 12 two-week intervals from September 2014 to October 2016.¹ Library staff recorded counts from automated gate counters located at library entrances at opening, after the first 15 minutes, at the beginning of each hour during the day,

¹ The visitor traffic data was collected prior to the June 2017 expansion of open hours, so no data is available for these hours.

15 minutes prior to closing, and at closing. This data allows for analysis of overall visitor traffic by hour at each location.²

Computer Login Analysis

The Library collected two types of computer use data:

- Login data for physical library terminal computers was collected every day at each library location from January 2017 to July 2017 via automated library systems that record login time and duration of use whenever a patron uses a Library computer.
- Connections to the Library Wi-Fi network were recorded daily by automated systems from July to November 2017³

This data allows for estimation of the number of Library patrons using computer services in any given hour at each location.⁴

Heatmaps and charts showing hourly visitor traffic and computer/Wi-Fi logins at each open hour for each of the 27 branch locations and the Main Library as well as averages across all 27 branch locations are presented in Appendix A.

Library System Open Hours Analysis

The assessment also included analysis of Library system open hours by time of day and day of week to present a comprehensive visual overview of the Library system-wide open hours coverage “footprint” during the week and identify specific gaps in coverage.

² The visitor traffic counts include both “ins” and “outs”, as the automated gate counters at libraries cannot distinguish a patron entering or exiting. Thus, for any given hour it is not possible to determine the number of discrete library visitors. However, total daily visitor traffic can be divided by 2 to derive the total number of visitors per day and an hourly average (e.g., if visitor traffic is counted at 500 in a day and the library is open for 5 hours the total number of visitors is $500 / 2 = 250$ and the hourly average is $250 / 5 = 50$ visitors). Further, for purposes of this analysis, all visitor traffic in the first 15 minutes of opening is assumed to be “ins” and all traffic in the last 15 minutes is assumed to be “outs.” Thus, for these time intervals, if traffic is counted at 20 then the assumption is that it is 20 visitors, not 10 visitors, during that time.

³ The Wi-Fi data and some of the computer login data was collected after the expansion of open hours at some locations in June 2017, but only hours that have visitor traffic data were included in the analysis.

⁴ The Wi-Fi login data has some important limitations for use in assessing Library open hours. First, the Wi-Fi is available outside the building at some branches, making it impossible to determine if a user is inside or outside the library when making a connection. Second, the Wi-Fi is also available during hours the libraries are closed. Third, Wi-Fi logins record only the start of a session and therefore under-count usage late in the day. Nevertheless, this data can be useful as a supplement to the visitor traffic data to provide a more comprehensive view of library use at different hours of the day and week.

Findings

1. THE LIBRARY EXCEEDS THE MINIMUM NUMBER OF REQUIRED OPEN HOURS

The Charter requires a minimum of 1,211 open hours, and the Library's current system-wide total of 1,460 open hours is approximately 21 percent above this floor. In June 2017, the Library added an additional 85 open hours at a total of 15 branch libraries, including adding an additional day of service at nine libraries,⁵ resulting in all branch libraries now being open seven days per week with a minimum of 50 hours per week.⁶

2. OVERALL HOURS COVERAGE VARIES LITTLE BETWEEN BRANCHES, DESPITE LARGE VARIATIONS IN VISITOR TRAFFIC

All branches are open for either 50 or 55 hours, despite large variation in average hourly visitor traffic, and neither the Main Library nor most of the busiest branch libraries received any additional open hours in the June 2017 expansion of open hours. The Library could likely serve more patrons by either reallocating some existing hours or by prioritizing new hours at the busier branches.

Of the busiest five branches by average hourly visitors, only North Beach (ranked number five) received additional open hours in June 2017, and of the top 10 branches only three received more hours. Conversely, seven of the 10 branches with the lowest average hourly traffic received more hours.⁷ Appendix B summarizes all library locations by visitors per hour, with weekly open hours and whether additional hours were added in June 2017.

Many of the libraries with lower usage were previously closed one day per week, and the expansion of hours ensures that all branches are now open seven days per week. Appendix C shows the current weekly open hours for all libraries. In some cases, hours were expanded at branches in historically underserved communities or for other community-specific reasons. These equity goals should be considered together with the goal of serving more patrons, as increasing the overall number of patrons served may have equity benefits as well. The Library should analyze how to maintain desired levels of service at all branches while also serving as many patrons as possible.

⁵ Previously, seven branch libraries were closed on Sundays and two libraries were closed on Mondays.

⁶ Previously, some branch libraries were open 45 hours per week, some 50 hours, and some 55 hours. The Main Library is open 60 hours per week.

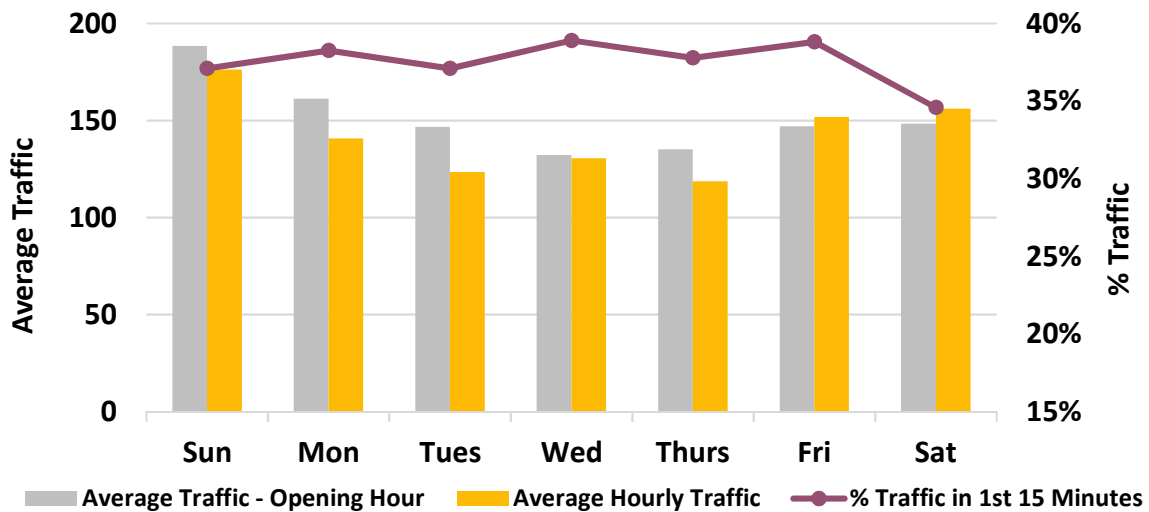
⁷ The three busiest branches have 157, 144 and 130 average hourly visitors, and the three least busy branches, which all received additional hours, have 37, 34 and 21 average hourly visitors.

3. BUSY HOURS AT THE START OR END OF THE DAY SUGGEST LATENT DEMAND

The opening hour is often busy for many libraries, especially when that opening hour is later than 10 a.m. Similarly, the closing hour is often busy on days when a library closes at 5 or 6 p.m. compared to days when it closes later in the evening. Hours with heavy use at the start or end of day suggest latent demand (e.g., patrons waiting for the library to open or rushing to use it before it closes), and patrons would benefit from earlier or later hours on those days.

Figure 1 shows average visitor traffic at the opening hour across all 27 branches compared to average hourly traffic for that day together with the percentage of opening hour traffic occurring in the first 15 minutes.

Figure 1: Libraries are Generally Busy at the Opening Hour, with a Disproportionate Share of Traffic in the First 15 Minutes of Opening



Opening hours at branches tend to be busier than the average hour, and 38 percent of opening hour traffic across all branches occurs in the first 15 minutes (25 percent of an hour).⁸ The busy opening hour and first 15 minutes suggests that many library patrons are lined up outside waiting for the library to open and thus would likely benefit from earlier opening times. Further, the percentage of traffic in the opening hour is slightly higher than 38 percent on average for opening hours at noon or 1 p.m., suggesting that when the library opens later than 10 a.m. an even greater proportion of patrons are lined up waiting for the library to open.

Figure 2 shows a comparison of visitor traffic at the Mission and Merced branches, and demonstrates how shifting hours earlier might alleviate latent demand:

⁸ This analysis assumes that a greater proportion of visitor traffic in the opening hour is 'ins' and that all traffic in the first 15 minutes is 'ins.' Thus, the total number of visitors is significantly higher on average in the opening hour compared to the daily average, as the traffic total would not be simply divided by 2 to get the number of visitors, as it is for daily totals.

- Both branches open at the same time on Friday, but Mission opens at 1 p.m. on Monday and Merced opens at 10 a.m.
- Both branches have similar relative traffic densities on Friday opening hour, but Mission is relatively busier during the later opening hour on Monday.

Figure 2: Opening Hour is Busier Later in the Morning; Closing Hour is Busier Earlier in the Evening⁹**Mission**

Average Traffic by Hour and Day of Week											Avg Daily Visitors	Avg Hourly Visitors			
 Sunday Monday Tuesday Wednesday Thursday Friday Saturday				191	164	180	194					365	91		
				257	212	217	213	251					575	115	
	182	154	147	163	171	224	236	200	178	99	97	926	84		
	129	137	137	164	168	210	219	203	160	107	91	862	78		
	218	200	142	175	212	209	207	198	148	104	88	951	86		
				191	174	199	216	230					505	101	
	137	175	193	197	205	193	169	144					706	88	
			10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	699	92

Merced

Average Traffic by Hour and Day of Week											Avg Daily Visitors	Avg Hourly Visitors		
➡	Sunday				153	138	146	144				291	73	
	Monday	133	102	84	99	111	124	124	127				452	57
	Tuesday	81	75	80	87	121	128	133	113	82	69	41	505	46
	Wednesday				101	100	122	128	116	85	54	51	378	47
	Thursday	146	96	77	82	93	111	119	87	68	45	36	480	44
	Friday				120	105	121	114	135				297	59
	Saturday	105	109	107	122	140	135	118	109				472	59
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	411	55	

Figure 2 also shows an example of relatively dense use at the closing hour on days the library closes at 5 or 6 p.m. and demonstrates how later open hours on some days might also alleviate latent demand. Both Mission and Merced branches are busy at the 5 p.m. hour on Mondays and Fridays, when the branch closes at 6 p.m., but relatively less busy at that time on other weekdays when the library is open until 9 p.m. This suggests that some patrons may be rushing to use these libraries before closing at 6 p.m. on Mondays and Fridays and that patrons would benefit from later closing hours on these days.

Libraries are also generally busier when open fewer hours in the day. Although the total number of visitors is generally lower on the days that libraries are open fewer hours, the high average hourly visitor traffic shows that more patrons are using the library in each open hour. Figure 3 shows the average visitor traffic across all branches and at the Main Library.

⁹ Hourly 'traffic' includes both 'ins' and 'outs.' Darker colored areas on the heatmaps indicate higher traffic volume during that hour relative to the traffic for that branch, and white areas indicate hours the library is closed. 'Avg Daily Visitors' is the sum of average daily visitor traffic divided by 2 and 'Avg Hourly Visitors' is the 'Avg Daily Visitors' total divided by the number of open hours that day, showing the average total number of discrete visitors per day and the average discrete visitors per open hour. The shading in these columns visually represents the relative rank of the visitor traffic for that day within the week, which allows for easy identification of the days with high and low visitor traffic as well as the days with high and low average hourly visitors.

Figure 3: Overall Denser Use on Days When Libraries are Open Fewer Hours in the Day

All Branches

Average Traffic by Hour and Day of Week											Avg Daily Visitors	Avg Hourly Visitors	
Sunday				188	165	168	183					352	88
Monday	124	100	89	146	149	177	172	167				563	70
Tuesday	146	121	104	115	140	165	164	146	112	72	72	678	62
Wednesday	189	160	108	129	137	166	164	144	100	69	69	718	65
Thursday	149	113	99	108	129	154	153	138	102	75	85	652	59
Friday				147	131	169	159	153				379	76
Saturday	146	154	154	165	169	167	160	134				624	78
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	567	71

Main Library

Average Traffic by Hour and Day of Week												Avg Daily Visitors	Avg Hourly Visitors
	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM		
Sunday				1208	1030	1070	1122	1249				2,839	568
Monday		1066	1036	1278	1226	1116	1070	1057	1087			4,467	558
Tuesday	810	909	1064	1273	1230	1168	1057	1085	1075	799	719	5,595	509
Wednesday	936	1152	1295	1479	1381	1281	1203	1151	1100	776	708	6,232	567
Thursday	815	964	1067	1246	1264	1196	1156	1100	1018	756	628	5,605	510
Friday				1401	1223	1155	1083	1105	1052			3,510	585
Saturday		950	907	1038	1163	1120	1127	1109	933			4,174	522
	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	4,632	545

Denser use on days with fewer open hours system-wide, especially on Sundays and Fridays, suggests that patrons are adjusting their schedules to visit the library during days with limited open hours.¹⁰ Expanding the coverage footprint to include additional open hours coverage on Sundays and Fridays would likely benefit many Library patrons.

The Library should use the visitor traffic and computer login data sheets provided in Appendix A to support any decisions regarding modification of open hours. Further, because busy hours at each branch are also driven by program schedules, the presence of schools, and other branch-specific factors, library management should also consult with branch managers to inform reallocation of existing hours and/or scheduling of additional hours.¹¹

New open hours on Sunday at nine libraries and on Saturday mornings at seven libraries may have alleviated some of the high weekend demand at some branches. For example, Figure 4 shows that Ingleside branch library had the highest average hourly traffic in the Saturday opening hour during the period that the traffic data was collected, but the opening time was changed in June 2017 to 10 a.m. from 1 p.m. Thus, the Library should analyze the effect of earlier opening times like this one on hourly and total visitor traffic.

¹⁰ The high average hourly visitor traffic on Wednesday mornings shown in the 'All Branches' summary in Figure 3 is overstated because only 6 out of 27 branch libraries were open in the 10 a.m. and 11 a.m. hours and these 6 branches are some of the busiest branches in the Library system (e.g. Richmond branch).

¹¹ For example, on Tuesdays at 10 a.m. many branches show a major spike in traffic that is likely due to special programming (e.g., story time) rather than latent demand.

Figure 4: New Open Hours May Have Alleviated High Visitor Traffic¹²**Ingleside**

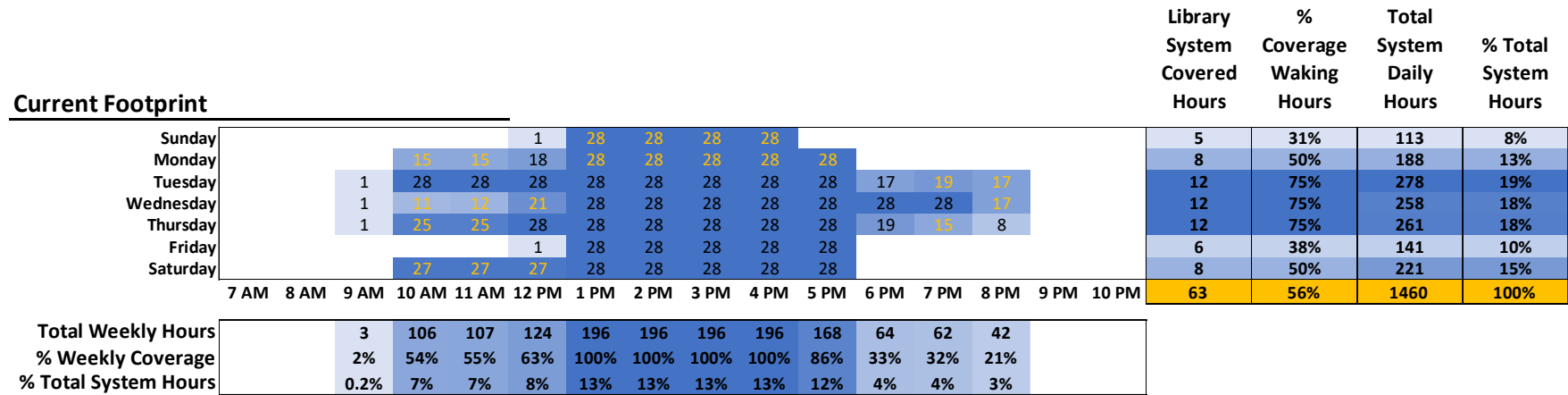
Average Traffic by Hour and Day of Week											Avg Daily Visitors	Avg Hourly Visitors	
Sunday				172	164	178	186					350	87
Monday	96	106	95	111	107	118	160	197				495	62
Tuesday	149	134	92	106	107	126	163	180				528	66
Wednesday			127	117	109	135	153	180	111	108		520	65
Thursday			133	91	111	127	148	125	114			424	61
Friday				136	111	162	127	144				340	68
Saturday				208	166	162	177	144				429	86
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	441	71

4. GAPS IN THE SYSTEM-WIDE OPEN HOURS FOOTPRINT LIKELY RESTRICT LIBRARY USE FOR PATRONS THAT WORK DURING THE REGULAR BUSINESS DAY AND CONTRIBUTE TO BUSY DAYS AND TIMES

Although the Library maintains more open hours than required by the Charter, the coverage footprint has significant gaps. Figure 5 presents an overview of the Library's system-wide open hours coverage footprint, showing the number of libraries open during each "waking hour" (7 a.m. to 11 p.m.) each day of the week.¹³ Figure 5 also shows the total number of system open hours broken out by hour of the day and day of the week, as well as the relative share of total system open hours in each day and at each hour across the system.

¹² The gray shaded areas indicate expanded open hours as of June 2017.

¹³ For the purposes of this analysis, "waking hours" are defined as hours where more than 50 percent of the population is engaged in non-sleeping activities according to the Bureau of Labor Statistics (BLS). BLS data available at <https://www.bls.gov/tus/#tables>.

Figure 5: Library System-Wide Open Hours Coverage Footprint¹⁴

¹⁴ The white areas indicate that no library is open during that time and the darker colored areas indicate that more libraries are open during that hour. The colored areas also show the actual number of libraries open (the orange numbers indicate expanded open hours as of June 2017). In the summary columns on the right side of the chart and in the summary rows below the open hours, the darker colored areas indicate more open hours coverage. Columns at right show density of coverage by day of the week; rows at bottom show density of coverage by hour of the day.

Overall, at least one library in the system is open during 56 percent of all “waking hours,” including 100 percent coverage in the core 1 p.m. to 5 p.m. period.¹⁵ However, the footprint still shows coverage gaps:

- Tuesdays, Wednesdays and Thursdays have high coverage, but Fridays are at 38 percent and Sundays are at 31 percent.
- All libraries are closed on Friday and Sunday mornings, and on Monday, Friday and weekend evenings.
- The 9 a.m. hour is covered only by the Main Library three days per week, resulting in only 2 percent coverage of total possible system hours at that time.
- No branch library opens before 10 a.m. or closes after 9 p.m., and the 8 p.m. hour has only 21 percent coverage.
- Two-thirds of total system open hours (and 85 percent of weekday system hours) occur during the 9 a.m. to 6 p.m. business day.
- Less than one-third of total possible system evening hours after 6 p.m. are covered.¹⁶

The concentration of open hours during the 9 a.m. to 6 p.m. business day likely serves many types of patrons well, such as school or community groups, people who are unemployed or employed in non-traditional hours, or people who care for children during the day. However, these hours potentially make it difficult for patrons who normally work these hours to visit a library during the week, especially if they also have commitments at home in the early evening on weekdays.

Expanding the coverage footprint to include coverage of more open hours or denser coverage of some open hours could improve access for these patrons and potentially alleviate high demand at other times. According to Library staff, most peer library systems concentrate open hours in the 9 a.m. to 6 p.m. business day, and administrative considerations make expansion beyond those hours challenging. Further research would be needed to determine whether benefits to patrons would justify the administrative difficulty of such an expansion.

The June 2017 open hours expansion added 85 system hours, primarily to mornings and afternoons. Although forty-seven hours (55 percent) were added on weekends, which are generally high-use days, the Library did not expand the system-wide coverage footprint. Figure 6 shows hours added in 2017.

¹⁵ In all cases where only one library is open it is the Main Library.

¹⁶ 28 libraries at 7 days per week = 196 possible library open hours for any given hour of the day. So, for the 9 a.m. hour, $3 / 196 = 2$ percent, and for the 6 p.m., 7 p.m. and 8 p.m. hours combined, $(64+62+42) / (196*3) = 29$ percent.

Figure 6: June 2017 Expanded Open Hours Are Primarily Morning and Afternoon Hours, and Did Not Expand the Coverage Footprint

June 2017 Expanded Open Hours by Hour and Day of Week											Total Daily Hours	% of Total Hours		
Sunday				7	7	7	7					28	33%	
Monday	1	1				2	2	2	2	2			12	14%
Tuesday										2	2	4	5%	
Wednesday	4	5	4							1	14	16%		
Thursday	4	3							1	8	9%			
Friday										0	0%			
Saturday	7	7	5							19	22%			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	85	100%	
Total Weekly Hours	16	16	9	9	9	9	9	2	0	3	3			
% of Total Hours	19%	19%	11%	11%	11%	11%	11%	2%	0%	4%	4%			

5. EVENINGS AFTER 7 P.M. GENERALLY HAVE THE LIGHTEST USE SYSTEM-WIDE

Visitor traffic and computer logins at most branch libraries drop off substantially after 7 p.m. Other times of light use vary from branch to branch.

As shown previously in Figure 3, average hourly visitor traffic across all branches is generally high at the closing hour on days when a library closes in the early evening, at 5 p.m. or 6 p.m. (e.g., Weekends, Mondays and Fridays), but drops off significantly after 6 p.m. and is lightest in the 7 p.m. and 8 p.m. hours.¹⁷ Figure 7 shows a similar decline in computer logins after 7 p.m. across all branches and at the Main Library.

¹⁷ The higher average hourly visitor traffic in the 8 p.m. hour on Wednesdays shown in the 'All Branches' summary is overstated because only 8 out of 27 branch libraries were open during this time (compared to 13 in the 7 p.m. hour), and several of these 8 branches are some of the busier branches in the Library system (e.g., Richmond branch).

Figure 7: Computer Logins Decline Sharply In the Late Evenings¹⁸**All Branches**

Average Logins by Hour and Day of Week*												Avg Daily Logins	Avg Hourly Logins
Sunday				68	75	77	68					287	72
Monday	41	43	49	62	68	78	80	71				492	61
Tuesday	51	60	61	65	74	87	92	86	66	51	37	727	66
Wednesday	47	49	56	66	78	90	92	86	71	55	40	730	66
Thursday	51	57	61	67	77	89	91	84	66	50	37	731	66
Friday				65	74	90	92	80				402	80
Saturday	51	61	66	73	78	79	75	61				545	68
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	559	69

Main Library

Average Logins by Hour and Day of Week												Avg Daily Logins	Avg Hourly Logins
	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM		
Sunday				610	705	741	688	557				3,301	660
Monday		632	685	751	752	757	744	732	622			5,674	709
Tuesday	600	651	729	822	831	847	838	861	863	646	471	8,159	742
Wednesday	663	793	878	931	914	883	869	867	813	628	426	8,666	788
Thursday	582	685	735	821	839	841	830	865	846	643	462	8,150	741
Friday				749	817	828	806	792	682			4,674	779
Saturday		505	576	636	682	713	735	643	509			4,999	625
	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	6,790	728

Although fewer patrons use these later evening hours, they likely serve a different patron population than daytime hours. Late evening hours may be the only times that some patrons are able to visit a library during the week due to work or other commitments. Further, because most end-of-day traffic consists of “outs” rather than “ins” and fewer patrons are likely to begin computer sessions close to closing time, the traffic and login numbers may understate the actual number of patrons using the libraries after 7 p.m.¹⁹

The Main Library is only open until 8 p.m., and although it is also generally less busy when closing after 6 p.m. the decline in usage is less significant than at the branches, suggesting that a relatively higher proportion of visitor traffic occurs at the Main Library after 7 p.m. than at the branches, and that patrons would benefit from later open hours at the Main Library.

¹⁸ “Logins” include both logins to Library computers as well as logins to the Library Wi-Fi from personal devices. Similar to the visitor traffic heatmaps, the darker colored areas on the heatmaps indicate higher login volume during that hour relative to the logins for that branch, and the white areas indicate hours the library is closed. The columns on the right are daily and hourly averages, with the color shading representing the relative rank of the day to other days in the week.

¹⁹ Across all branches 29 percent of visitor traffic in the last 15 minutes are “outs”, meaning that the total number of visitors is greater than traffic divided by 2.

Recommendations

1. ALLOCATE ANY NEW OPEN HOURS TO SPECIFIC PRIORITY AREAS

Although the Library well exceeds its minimum number of open hours, service gaps remain that result in high visitor traffic demand on certain days of the week and times of day. Additional open hours would likely alleviate much of this demand and would better serve Library patrons, but adding additional hours would result in additional costs. If the Library devotes staff and budget resources to a further expansion of open hours, the following areas would reduce gaps in system-wide coverage and alleviate high demand on some days and times at specific libraries:

1a. Expand open hours on Sundays and Fridays.

Visitor traffic is consistently high from opening to closing at most libraries on these days, likely due to a combination of high demand and the libraries being open fewer hours in the day. Extending opening and closing times on these days would likely benefit the largest number of library patrons.

1b. Extend opening and closing times on more days at locations demonstrating latent demand.

Usage is consistently high at the existing 5 p.m. or 6 p.m. closing hours, and many libraries are busy in the opening hour. Extending opening and closing times at some locations would likely alleviate some of this latent demand and would give more choice for library patrons to use a library outside of the existing open hours on more days.

The Library should use the visitor traffic and computer login data sheets provided in Appendix A to support these decisions. Because busy hours at each branch are also driven by program schedules, the presence of schools, and other branch-specific factors, library management should also consult with branch managers to inform scheduling of additional hours.

2. CONSIDER REALLOCATING EXISTING OPEN HOURS WITHIN AND ACROSS BRANCH LIBRARIES

Expanding hours would result in additional costs that may or may not be feasible for the Library to expend. However, even without adding more system-wide open hours, the Library could use the following strategies to reallocate current open hours at some locations to improve system-wide coverage and serve more patrons:

2a. Reallocate open hours to reduce coverage gaps and expand system-wide coverage footprint.

The June 2017 open hours expansion included 85 additional open hours, primarily in the mornings and afternoons, all within the existing coverage footprint. The expanded hours at these and other branches could potentially be reallocated to both address high-demand times and expand the existing coverage footprint.

Figure 8 on the following page shows the existing footprint and two example reallocations of the existing 1,460 open hours: a moderate expansion that achieves 68 percent waking hours coverage and a broader expansion that achieves 78 percent coverage (compared to the current 56 percent coverage).

City Performance is not recommending that the Library specifically adopt either of these expanded footprints. Rather, they demonstrate strategies that the Library might employ to expand the current footprint and alleviate latent demand, including:

- Reallocating open hours to Monday evenings, and Sunday and Friday mornings and evenings, to address specific high-demand times.
- Opening two branch libraries earlier than 10 a.m. Monday through Thursday.
- Opening one library at 8 a.m. three days per week to allow some patrons to visit a library before the start of the business day.
- Spreading the current morning and evening hours equally across the week to provide coverage on Friday mornings and Monday and Friday evenings.
- Staggering opening and closing times across branches on Sundays and Fridays to expand the footprint on those days.

City Performance has not conducted a cost-benefit analysis of these changes, and understands that even without adding hours some of these reallocation strategies would present administrative considerations, including: changes to staff schedules, increased overhead costs, reduced time for library staff meeting times, and a greater complexity of scheduling across the system. Nevertheless, the Library should weigh these challenges against the benefits to patrons of providing more comprehensive open hours coverage.

If the Library adopts strategies to expand the coverage footprint, it should consider geography when reallocating open hours. The library should consider branches near one another as a cluster and aim to have at least one library in that cluster open during each weekday morning and evening. The Library should strive to ensure that if a patron's local or preferred branch is not open, another nearby location would be open, as patrons who live near several branches may adjust their behavior to use one branch or the other depending on open hours. Thus, these geographic clusters should be based on where patrons live and work, rather than on the 11 supervisorial districts or the Library's five administrative districts and should also consider other factors such as the location of major transit hubs.

Figure 10: Current Coverage Footprint and Example Reallocations of Existing Open Hours to Expand the Footprint²⁰

Current Footprint													Library System Covered Hours	% Coverage Waking Hours	Total System Daily Hours	% Total System Hours
Sunday					1	28	28	28	28				5	31%	113	8%
Monday			15	15	18	28	28	28	28	28			8	50%	188	13%
Tuesday		1	28	28	28	28	28	28	28	28	17	17	12	75%	278	19%
Wednesday		1	11	12	11	28	28	28	28	28	28	28	12	75%	258	18%
Thursday		1	25	25	28	28	28	28	28	28	19	15	12	75%	261	18%
Friday					1	28	28	28	28	28			6	38%	141	10%
Saturday			27	27	27	28	28	28	28	28			8	50%	221	15%
													63	56%	1460	100%
Total Weekly Hours		3	106	107	124	196	196	196	196	168	64	62	42			
% Weekly Coverage		2%	54%	55%	63%	100%	100%	100%	100%	86%	33%	32%	21%			
% Total System Hours		0.2%	7%	7%	8%	13%	13%	13%	13%	12%	4%	4%	3%			

Example Reallocation - Moderate Expansion																								
Sunday					14	28	28	28	28	14			6	38%	140	10%								
Monday		2	15	15	16	28	28	28	28	28	8	8	11	69%	204	14%								
Tuesday		3	22	22	22	28	28	28	28	28	18	19	12	75%	262	18%								
Wednesday		3	11	12	21	28	28	28	28	28	28	20	16	75%	251	17%								
Thursday		3	25	25	26	28	28	28	28	28	19	19	14	75%	271	19%								
Friday					8	28	28	28	28	28			7	44%	156	11%								
Saturday			12	12	12	28	28	28	28	28			8	50%	176	12%								
													68	61%	1460	100%								
													11	85	86	119	196	196	196	196	182	81	66	46
													6%	43%	44%	61%	100%	100%	100%	100%	93%	41%	34%	23%
													1%	6%	6%	8%	13%	13%	13%	13%	12%	6%	5%	3%

Example Reallocation - Broad Expansion																									
Sunday				14	14	28	28	28	28	14	14		8	50%	168	12%									
Monday			2	15	16	18	28	28	28	28	28	15	13	8	12	75%	227	16%							
Tuesday		1	3	15	16	18	28	28	28	28	28	15	13	8	13	81%	229	16%							
Wednesday		1	3	15	16	18	28	28	28	28	28	15	13	8	13	81%	229	16%							
Thursday		1	3	15	16	18	28	28	28	28	28	15	13	8	13	81%	229	16%							
Friday				12	12	12	28	28	28	28	28	12	8	6	11	69%	202	14%							
Saturday				12	12	12	28	28	28	28	28				8	50%	176	12%							
													78	70%	1460	100%									
													3	11	98	102	124	196	196	196	182	182	72	60	38
													2%	6%	50%	52%	63%	100%	100%	100%	93%	93%	37%	31%	19%
													0.2%	1%	7%	7%	8%	13%	13%	13%	12%	12%	5%	4%	3%

²⁰ Numbers in black indicate no change from existing open hours, numbers in red indicate reduced open hours, numbers in green indicate added hours. City Performance is not recommending that the Library specifically adopt either of these expanded footprints; rather, they demonstrate strategies that the Library might employ to expand the current open hours footprint and alleviate latent demand.

2b. Reallocate open hours from some low-traffic branches to high-traffic branches or the Main Library.

The Main Library and most of the busiest branches received no additional open hours in June 2017, and the Library should consider reallocating some open hours to these libraries to alleviate high demand and potentially expand the coverage footprint. As part of this reallocation, the Library should consider expanding branch open hours beyond 55 per week at some of the busiest libraries in the system. The Library should use the visitor traffic and computer login data sheets provided in Appendix A to support these decisions.

3. CONDUCT FURTHER ANALYSIS INTO USAGE PATTERNS.

Upcoming infrastructure improvements will allow the Library to distinguish between visitor traffic “ins” and “outs” and will enable the Library to analyze the effects of changing hours on patron usage in nearly real time.²¹ Any changes made to open hours in 2018 and beyond should be monitored to determine whether they are having the intended effect.

3a. Monitor the effect on visitor traffic of the June 2017 open hours expansion.

The June 2017 expansion included additional hours on weekends and in some cases added hours adjacent to existing hours with high latent demand. Thus, there hours likely alleviated some of the high demand at some locations, and the Library should consider the effect of these new open hours especially where open hours were added adjacent to high-use hours. The Library should also reevaluate the allocation of any new hours between mornings and evenings to ensure that new hours were added most effectively. This analysis would better enable the Library to propose additional open hours, or reallocate existing hours most effectively.

3b. Pilot hours outside the coverage window.

The current data allows for insight about usage within and at the edges of the current coverage footprint, but is less useful for gauging potential demand further outside existing hours. For example, it is difficult to draw conclusions about how patrons might use the library before the business day or late at night. Piloting longer hours, especially before the business day, would give insight into whether those times might better serve some patrons, and the Library should monitor and analyze patron usage as part of any such pilot. Similarly, the Library should review usage patterns as part of any pilot reallocation of open hours designed to reduce coverage gaps and expand the system-wide coverage footprint.

²¹ The Library is currently implementing SenSource (<https://www.sensourceinc.com/>), a new patron counter system that uses state-of-the-art technology to track patron “ins” and “outs.” As of December 2017, this technology has been installed in 15 locations at the Main Library, and it will be fully implemented across the entire system by June 2018. SenSource will provide real-time data and analytics about facilities usage, and will save significant staff time from manually recording daily and hourly gate counts during assessment periods.

Appendix A: Library Usage by Location

City Performance prepared heatmaps and charts showing hourly visitor traffic and computer/Wi-Fi logins at each open hour for each of the 27 branch locations and the Main Library as well as averages across all 27 branch locations. This data allows for analysis of overall visitor traffic, and for estimation of the number of Library patrons using computer services, by hour at each location. The Wi-Fi data and some of the computer login data was collected after the expansion of open hours at some locations in June 2017, but only hours that have visitor traffic data were included in the analysis.

The visitor traffic counts include both “ins” and “outs”, as the automated gate counters at libraries cannot distinguish a patron entering or exiting. Thus, for any given hour it is not possible to determine the number of discrete library visitors. However, total daily visitor traffic can be divided by 2 to derive the total number of visitors per day and an hourly average (e.g., if visitor traffic is counted at 500 in a day and the library is open for 5 hours the total number of visitors is $500 / 2 = 250$ and the hourly average is $250 / 5 = 50$ visitors). “Logins” include both logins to Library computers as well as logins to the Library Wi-Fi from personal devices.

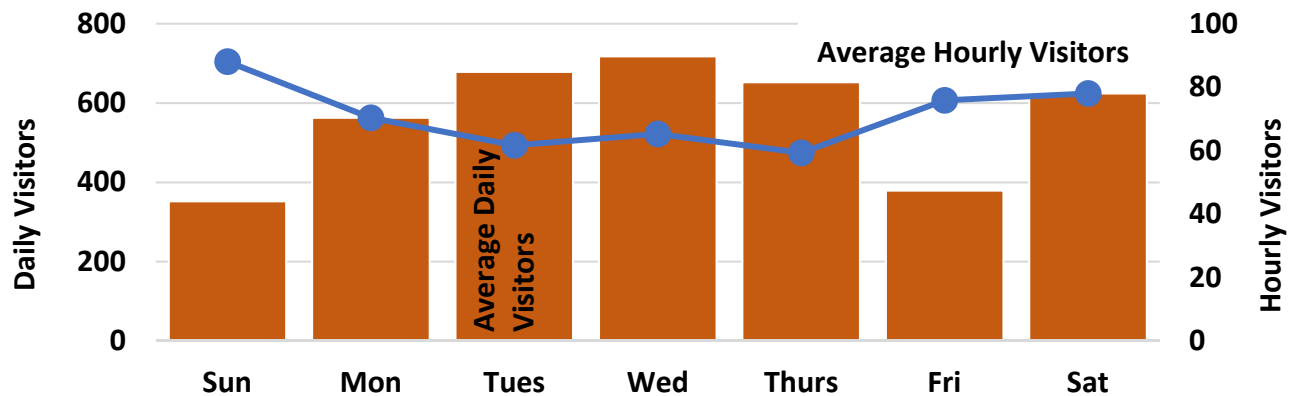
The Wi-Fi login data has some important limitations for use in assessing Library open hours. First, the Wi-Fi is available outside the building at some branches, making it impossible to determine if a user is inside or outside the library when making a connection. Second, the Wi-Fi is also available during hours the libraries are closed. Third, Wi-Fi logins record only the start of a session and therefore under-count usage late in the day. Nevertheless, this data can be useful as a supplement to the visitor traffic data to provide a more comprehensive view of library use at different hours of the day and week.

The darker colored areas on the heatmaps indicate higher traffic/login volume during that hour relative to the logins for that branch, and the white areas indicate hours the library is closed. The gray shaded areas indicate expanded open hours as of June 2017.

Average daily and hourly visitors/logins is also displayed in the column/line chart, with daily visitors/logins represented by the colored columns corresponding to the primary (left) vertical axis and hourly visitors/logins represented by the line corresponding to the secondary (right) vertical axis.

All Branches

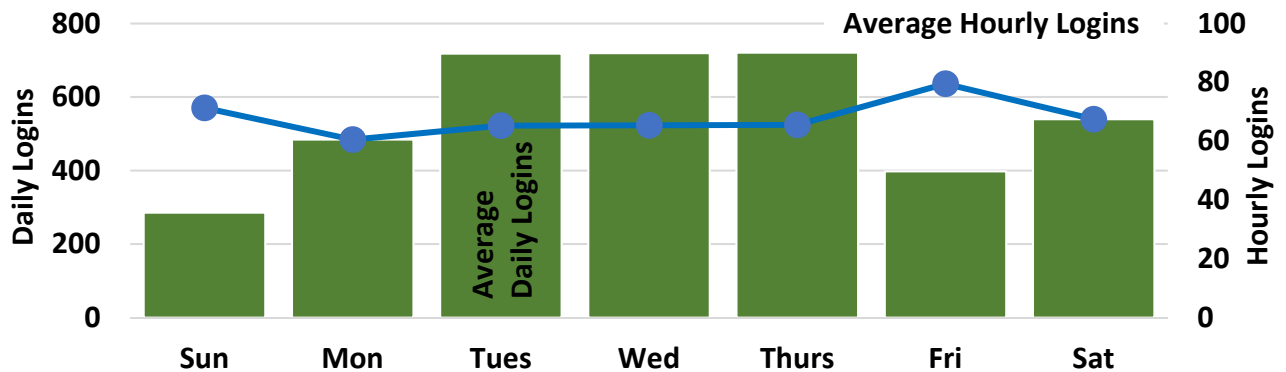
Visitor Traffic



Average Traffic by Hour and Day of Week*

Sunday				188	165	168	183				
Monday	124	100	89	146	149	177	172	167			
Tuesday	146	121	104	115	140	165	164	146	112	72	72
Wednesday	189	160	108	129	137	166	164	144	100	69	69
Thursday	149	113	99	108	129	154	153	138	102	75	85
Friday				147	131	169	159	153			
Saturday	146	154	154	165	169	167	160	134			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

Computer and WiFi Logins

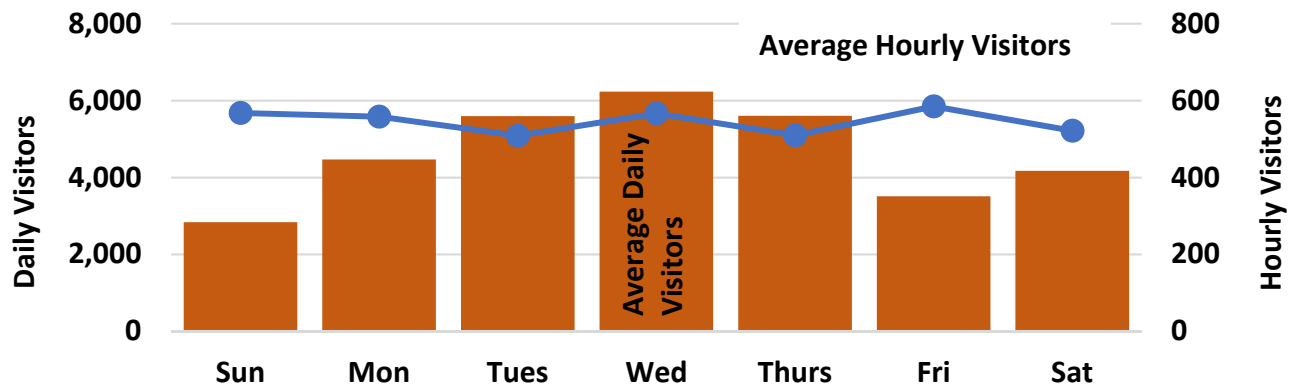


Average Logins by Hour and Day of Week*

Sunday				67	74	76	68				
Monday	40	42	48	61	68	77	79	69			
Tuesday	50	59	60	64	73	87	90	84	64	50	36
Wednesday	46	48	54	66	78	89	90	85	70	54	39
Thursday	51	56	60	66	77	89	90	83	64	48	37
Friday				64	74	90	91	79			
Saturday	50	60	65	73	77	79	75	61			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours no branch is open.

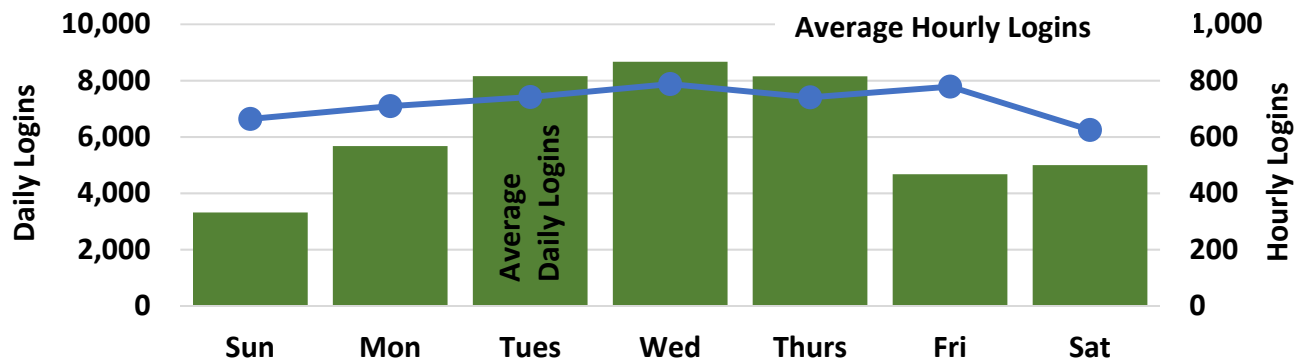
Visitor Traffic



Average Traffic by Hour and Day of Week

Sunday				1208	1030	1070	1122	1249		
Monday		1066	1036	1278	1226	1116	1070	1057	1087	
Tuesday	810	909	1064	1273	1230	1168	1057	1085	1075	799
Wednesday	936	1152	1295	1479	1381	1281	1203	1151	1100	776
Thursday	815	964	1067	1246	1264	1196	1156	1100	1018	756
Friday				1401	1223	1155	1083	1105	1052	
Saturday		950	907	1038	1163	1120	1127	1109	933	
	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM
										7 PM

Computer and WiFi Logins

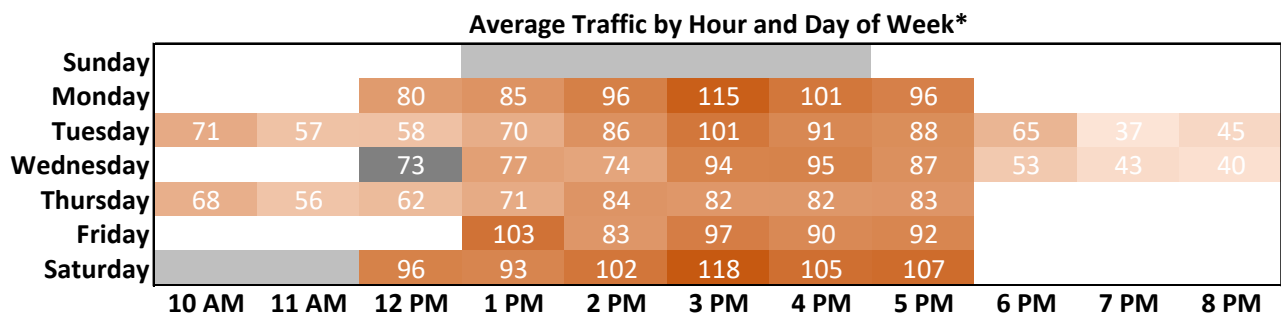
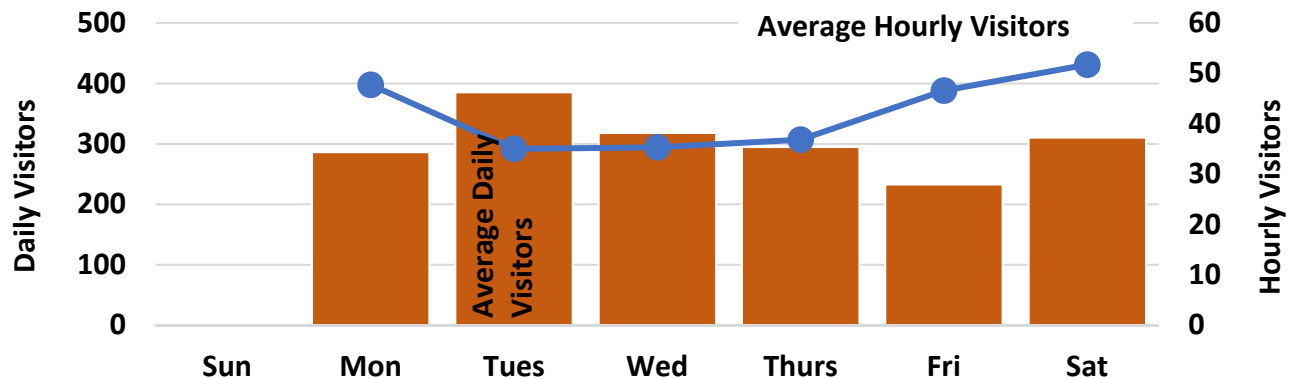


Average Logins by Hour and Day of Week

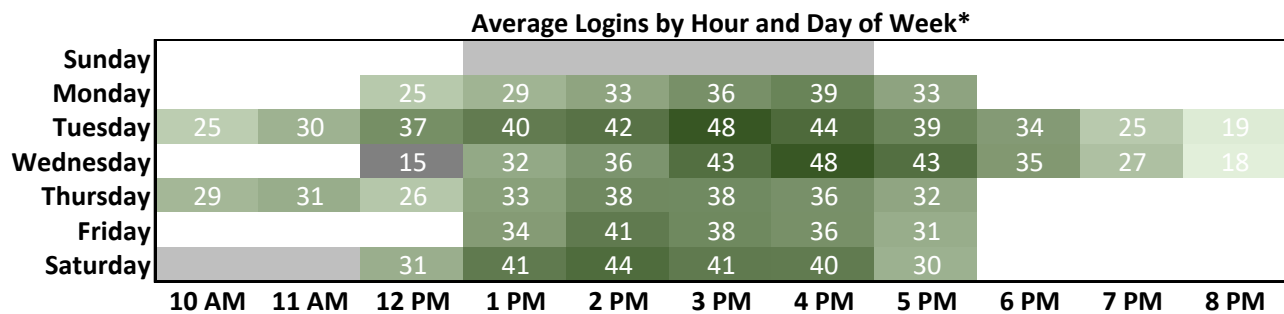
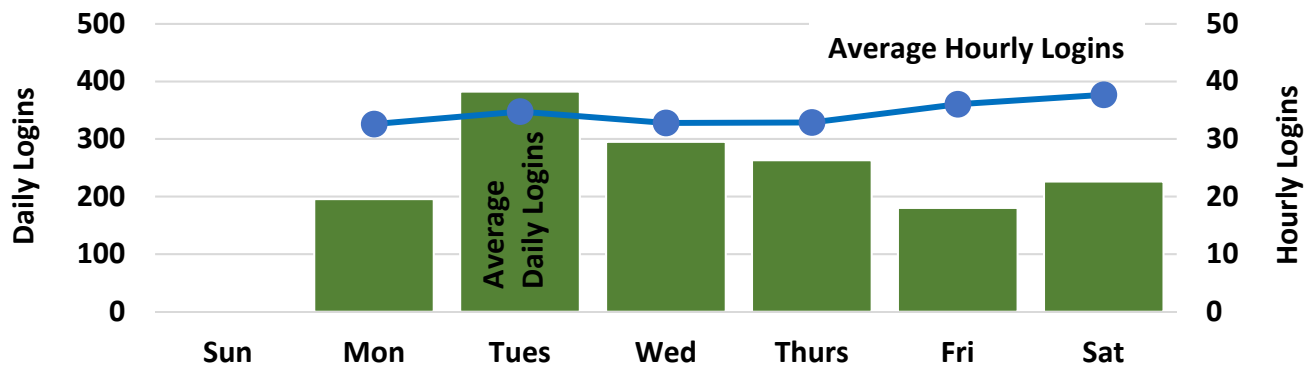
Sunday				614	709	746	692	559		
Monday		632	685	751	752	757	744	732	622	
Tuesday	600	651	729	822	831	847	838	861	863	646
Wednesday	663	793	878	931	914	883	869	867	813	628
Thursday	582	685	735	821	839	841	830	865	846	643
Friday				749	817	828	806	792	682	
Saturday		505	576	636	682	713	735	643	509	
	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM
										7 PM

*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed.

Visitor Traffic

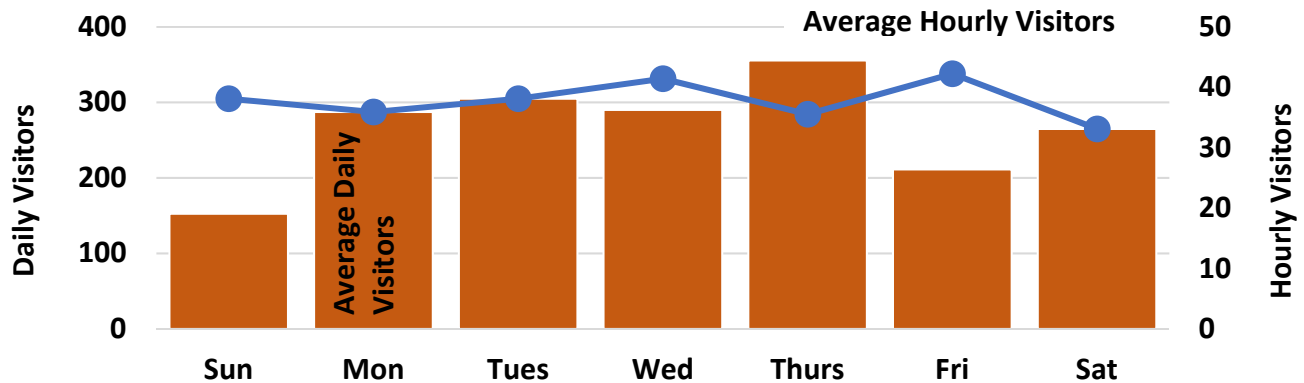


Computer and WiFi Logins



*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed; gray areas indicate expanded open hours as of June 2017 (dark gray area indicates eliminated hour).

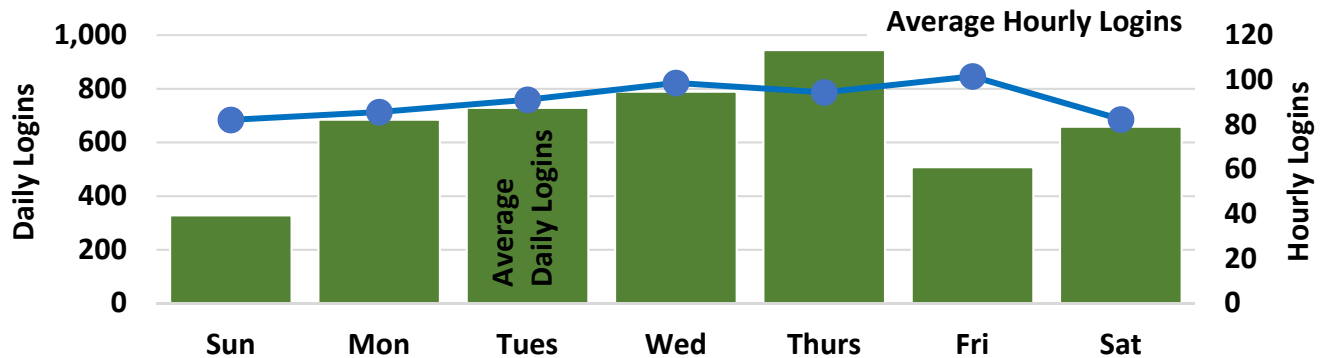
Visitor Traffic



Average Traffic by Hour and Day of Week*

Sunday				87	69	66	83			
Monday	59	54	60	64	73	81	90	94		
Tuesday	66	66	73	69	77	84	81	93		
Wednesday				97	82	97	100	86	61	57
Thursday	73	63	57	75	76	74	86	74	66	67
Friday				82	78	84	86	92		
Saturday	70	56	66	65	72	75	61	65		
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM

Computer and WiFi Logins

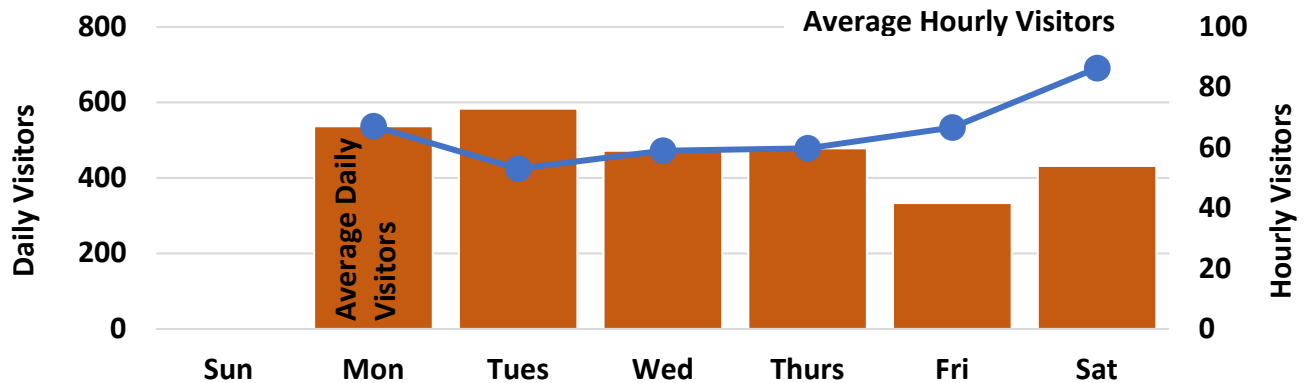


Average Logins by Hour and Day of Week*

Sunday				83	85	83	77			
Monday	69	70	80	76	69	92	114	115		
Tuesday	69	79	68	85	85	100	122	121		
Wednesday			79	84	77	123	123	115	104	85
Thursday	66	74	89	92	93	96	120	127	103	85
Friday				91	95	106	111	105		
Saturday	73	75	87	88	87	87	88	75		
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM

*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed; gray areas indicate expanded open hours as of June 2017.

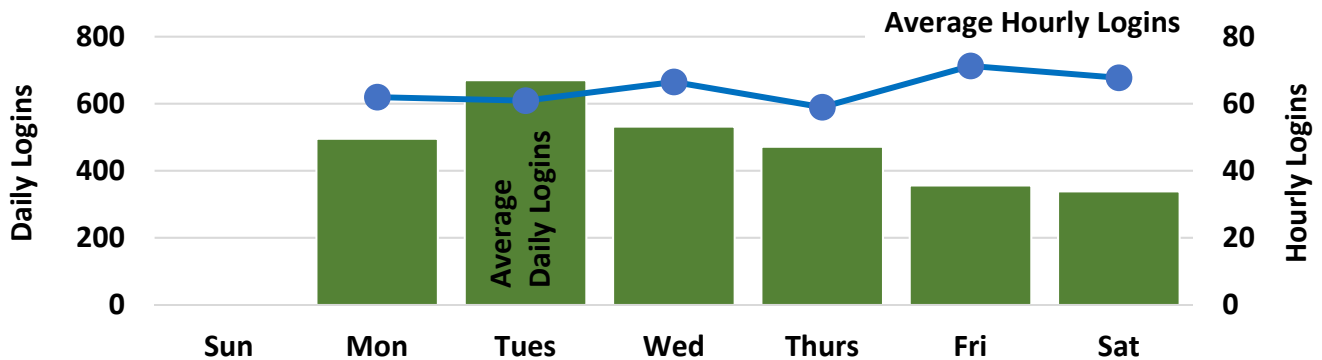
Visitor Traffic



Average Traffic by Hour and Day of Week*

Sunday											
Monday	129	89	143	131	129	136	170	147			
Tuesday	104	101	95	106	123	121	159	129	96	55	78
Wednesday				165	111	138	151	128	115	80	57
Thursday	146	96	90	111	96	134	136	148			
Friday				145	118	126	129	149			
Saturday				191	168	167	175	163			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

Computer and WiFi Logins

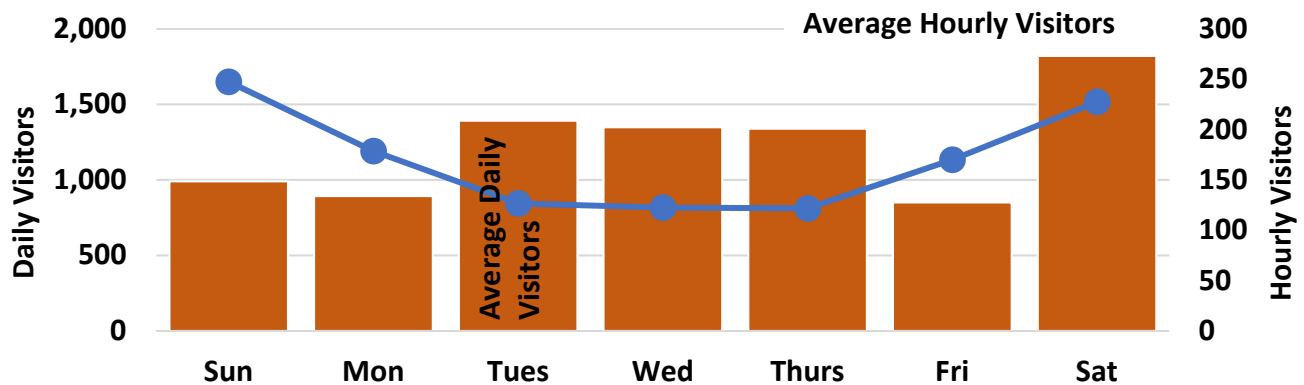


Average Logins by Hour and Day of Week*

Sunday											
Monday	44	51	59	64	60	67	81	69			
Tuesday	37	51	55	60	65	68	80	87	70	55	42
Wednesday				67	66	64	77	88	75	59	37
Thursday	49	52	57	64	60	61	63	66			
Friday				64	66	70	81	75			
Saturday				67	65	69	75	62			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed; gray areas indicate expanded open hours as of June 2017.

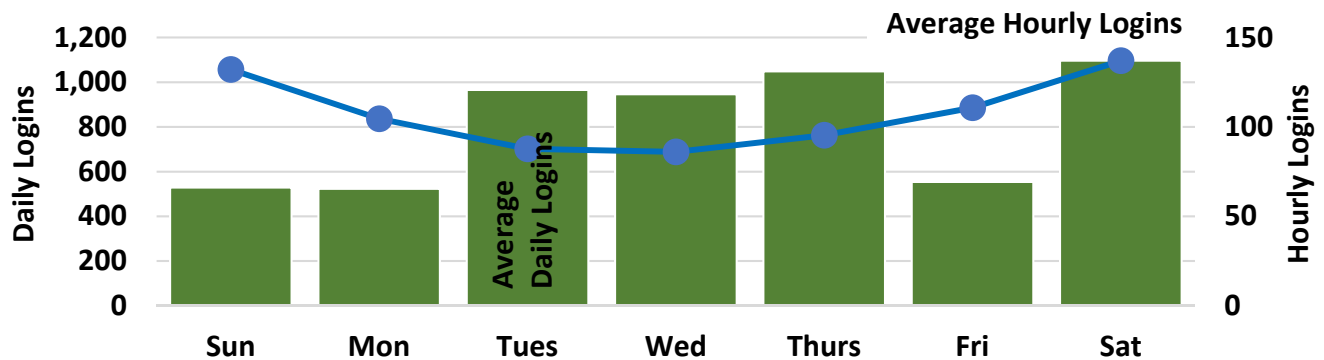
Visitor Traffic



Average Traffic by Hour and Day of Week*

Sunday				526	492	461	501				
Monday				400	316	365	364	341			
Tuesday	260	217	223	277	342	374	349	300	191	115	136
Wednesday	325	213	210	269	297	352	332	290	181	110	117
Thursday	282	203	221	276	290	364	346	284	181	102	129
Friday				356	292	346	350	356			
Saturday	355	396	457	515	553	523	489	353			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

Computer and WiFi Logins

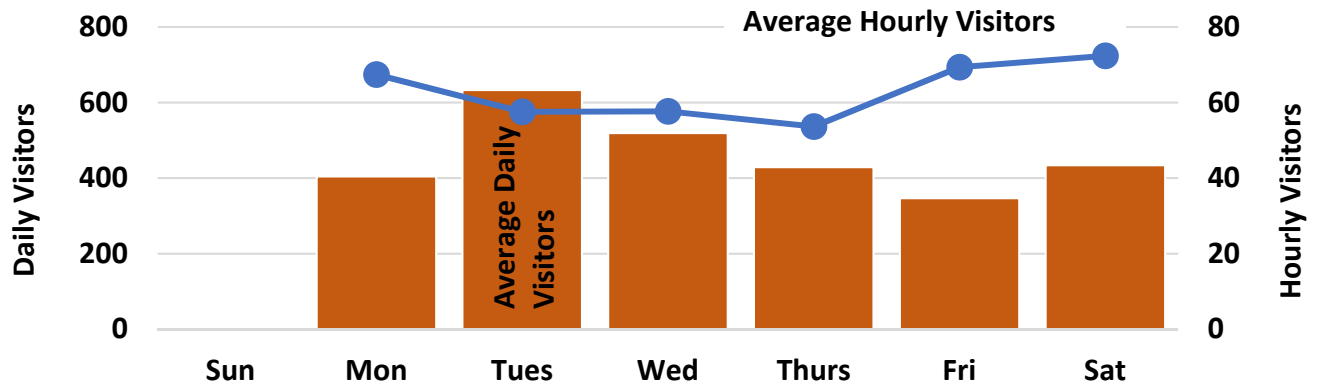


Average Logins by Hour and Day of Week*

Sunday				125	142	146	115				
Monday				84	102	118	125	95			
Tuesday	53	64	70	81	99	125	144	123	83	66	57
Wednesday	61	65	79	88	107	123	125	105	76	65	52
Thursday	61	74	83	93	115	145	137	119	86	73	62
Friday				81	101	129	140	104			
Saturday	87	116	131	155	169	177	156	106			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed; gray areas indicate expanded open hours as of June 2017.

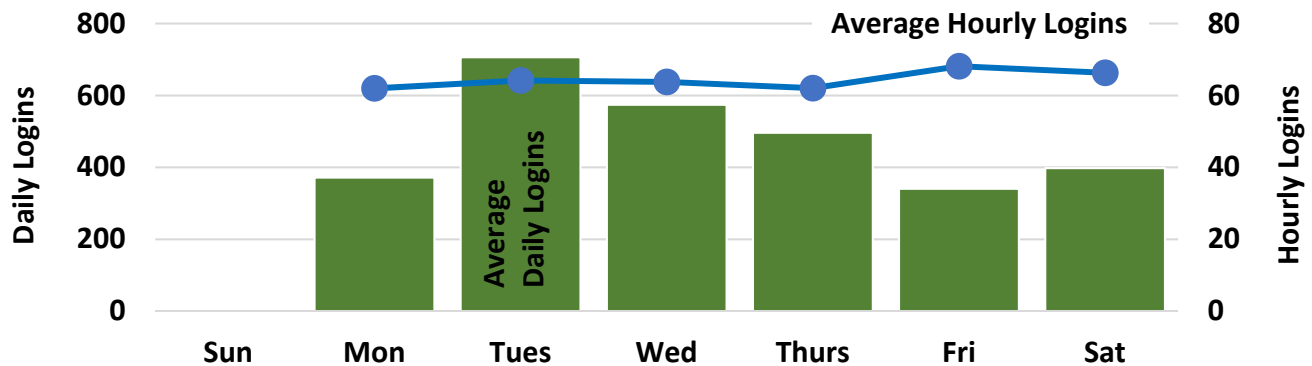
Visitor Traffic



Average Traffic by Hour and Day of Week*

Sunday										
Monday			124	114	135	147	152	138		
Tuesday	193	137	105	112	127	140	127	114	91	62
Wednesday			126	138	151	138	139	123	97	69
Thursday	106	76	100	98	111	118	128	121		
Friday				174	128	123	136	132		
Saturday			144	143	159	143	153	126		
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM

Computer and WiFi Logins

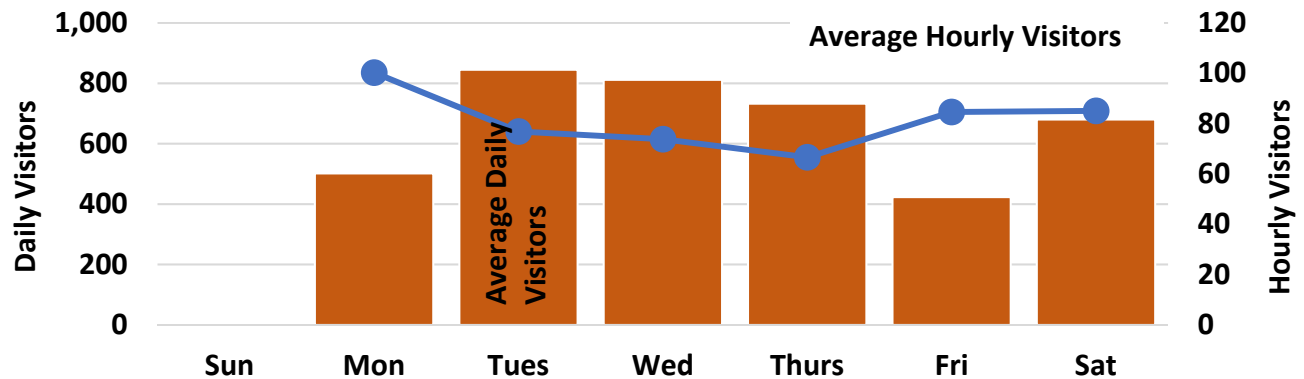


Average Logins by Hour and Day of Week*

Sunday										
Monday			61	58	57	66	67	63		
Tuesday	50	60	59	58	71	75	84	84	65	58
Wednesday			55	62	68	66	72	75	69	62
Thursday	44	53	52	62	65	76	77	68		
Friday				64	66	69	73	70		
Saturday			67	69	72	68	64	58		
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM

*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed; gray areas indicate expanded open hours as of June 2017.

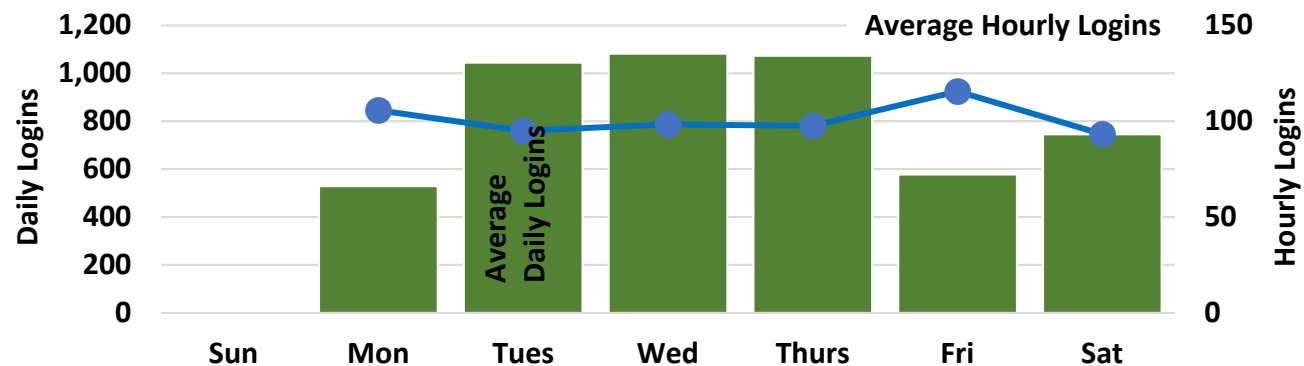
Visitor Traffic



Average Traffic by Hour and Day of Week*

	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM
Sunday				222	202	203	196				
Monday				199	162	206	220	216			
Tuesday	164	156	152	145	178	190	194	194	150	88	80
Wednesday	139	145	119	140	151	221	233	188	130	81	76
Thursday	128	123	125	122	148	182	192	170	119	76	80
Friday				163	135	169	198	181			
Saturday	151	172	183	179	174	186	168	148			

Computer and WiFi Logins

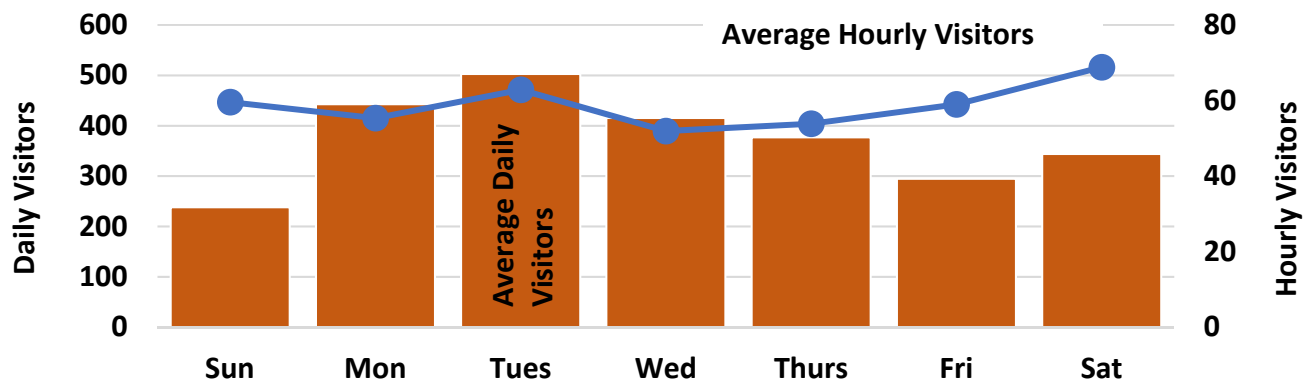


Average Logins by Hour and Day of Week*

	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM
Sunday				94	105	109	93				
Monday				108	111	112	106	91			
Tuesday	65	83	87	92	103	115	133	128	101	79	58
Wednesday	76	84	87	99	112	127	143	122	98	79	56
Thursday	69	76	87	100	108	128	141	123	102	83	58
Friday				82	101	127	144	124			
Saturday	72	83	98	102	105	110	100	75			

*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed; gray areas indicate expanded open hours as of June 2017.

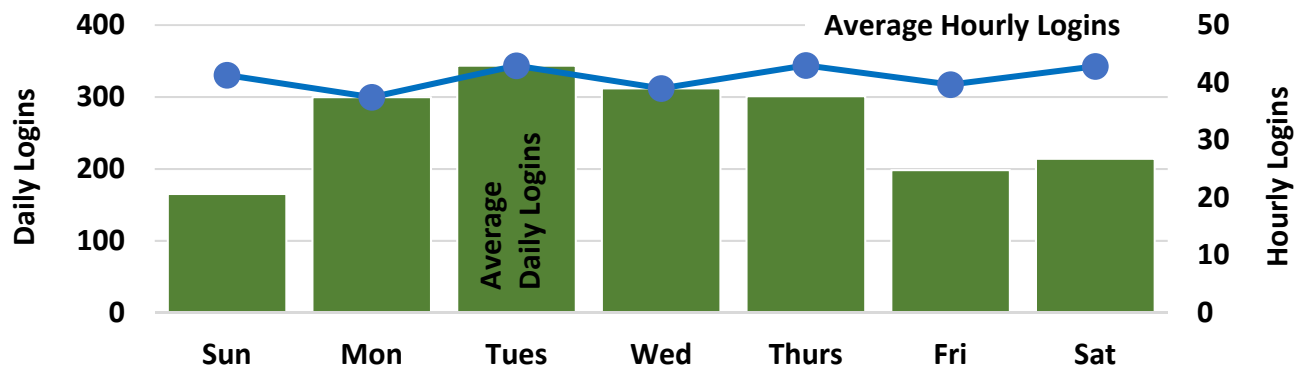
Visitor Traffic



Average Traffic by Hour and Day of Week*

	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM
Sunday				128	101	111	136				
Monday	83	70	71	93	102	136	186	145			
Tuesday	193	138	92	80	106	114	152	130			
Wednesday			90	75	109	122	129	137	95	74	
Thursday			101	85	105	106	128	120	109		
Friday				129	93	122	120	125			
Saturday				162	116	143	137	131			

Computer and WiFi Logins

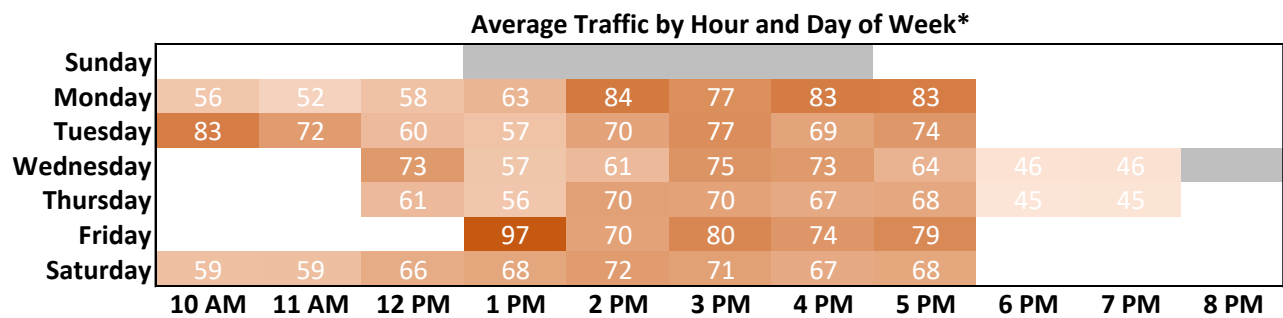
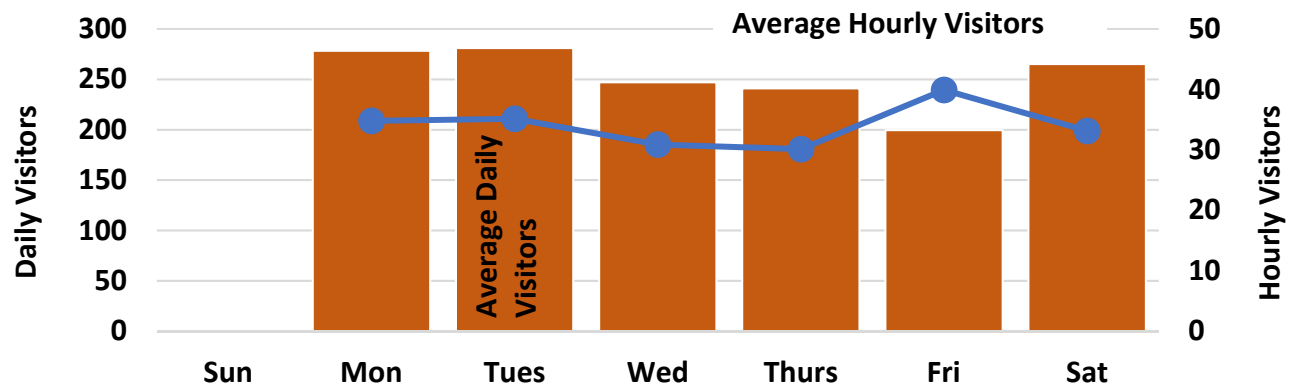


Average Logins by Hour and Day of Week*

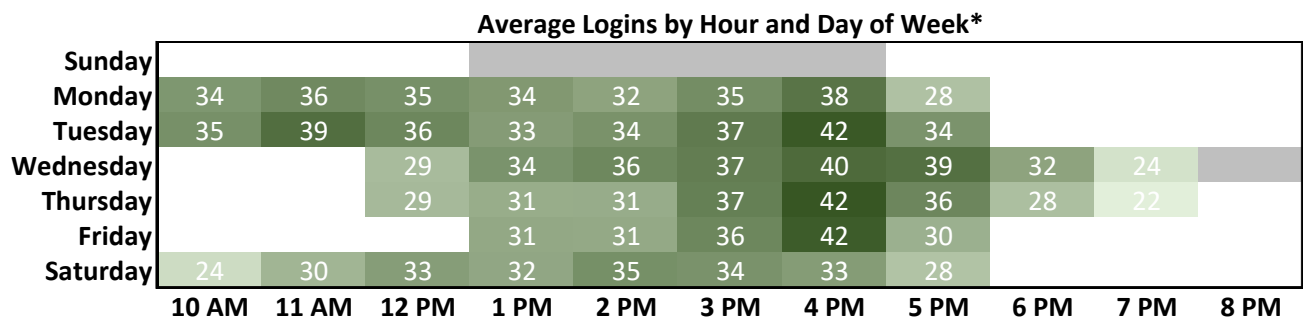
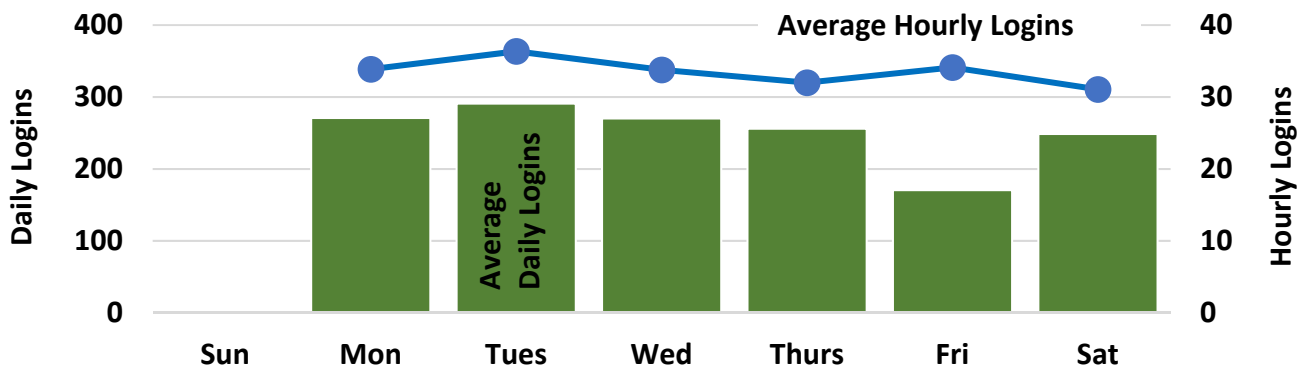
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM
Sunday				40	41	45	40				
Monday	26	33	35	32	36	46	53	39			
Tuesday	40	44	37	36	40	50	53	42			
Wednesday			27	32	39	48	52	47	41	27	
Thursday			37	43	42	52	57	42	30		
Friday				29	36	49	47	38			
Saturday				43	48	49	42	32			

*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed; gray areas indicate expanded open hours as of June 2017.

Visitor Traffic

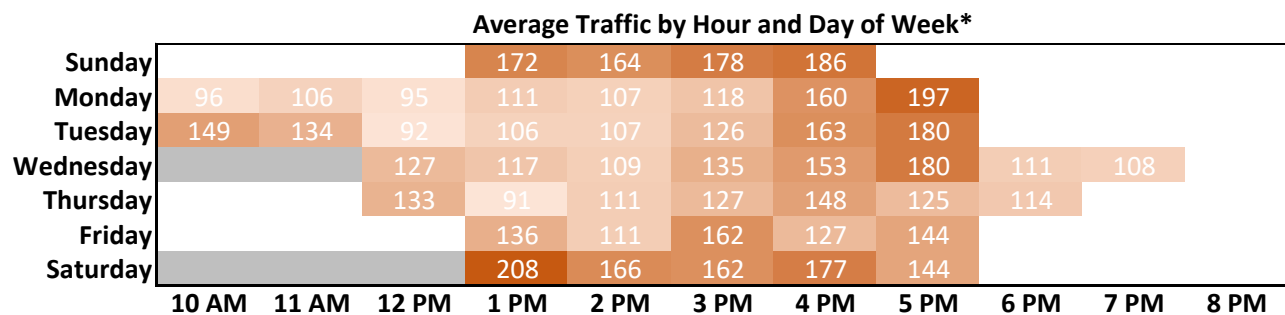
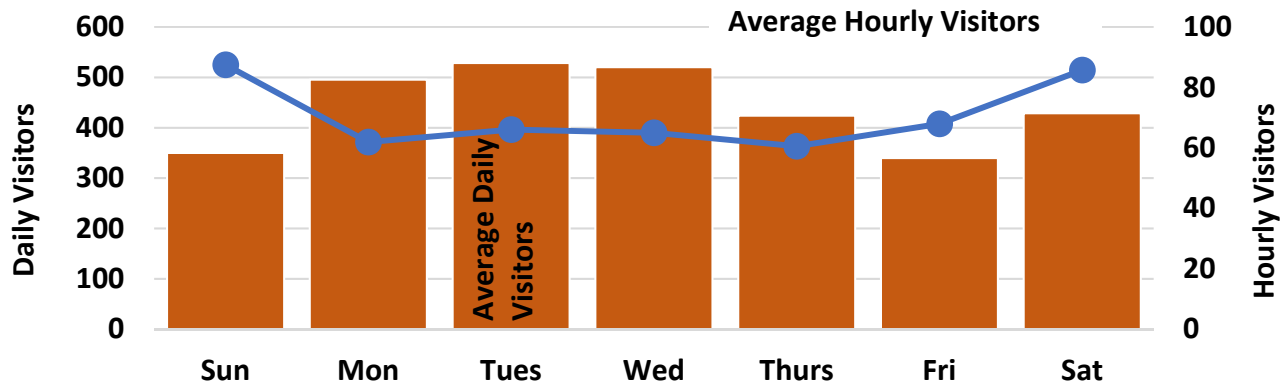


Computer and WiFi Logins

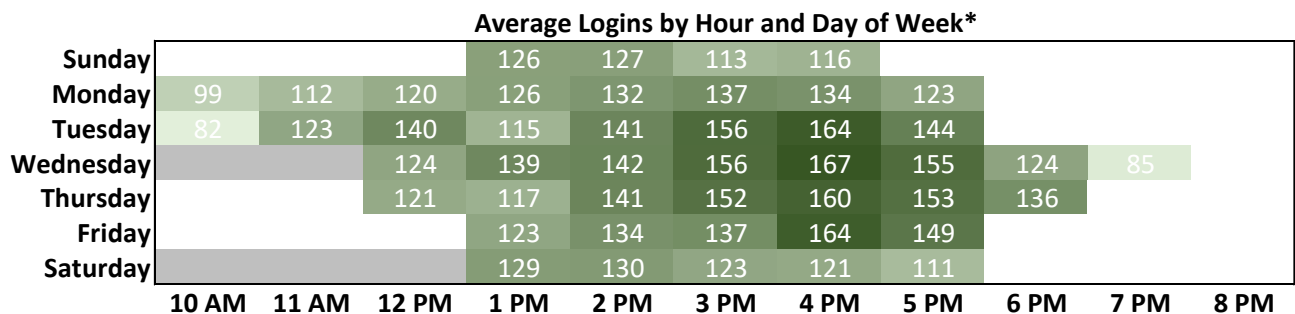
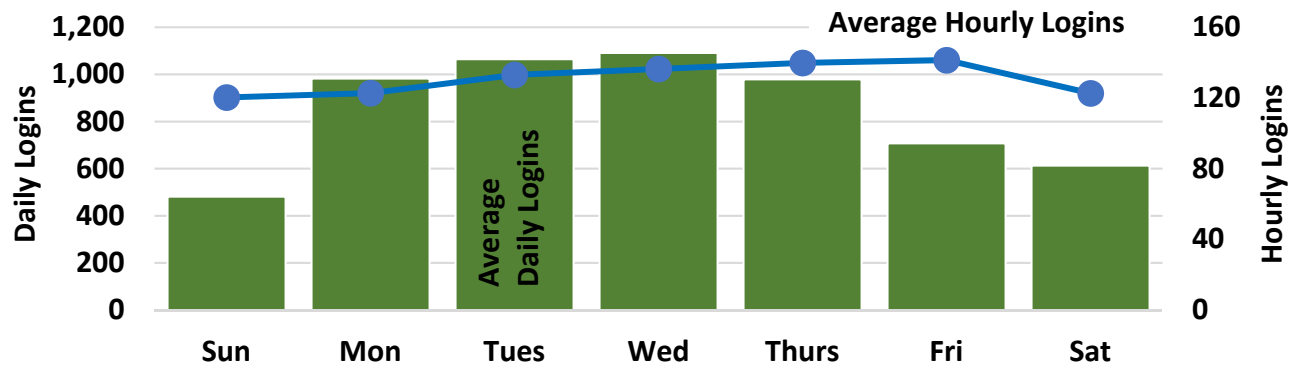


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Visitor Traffic

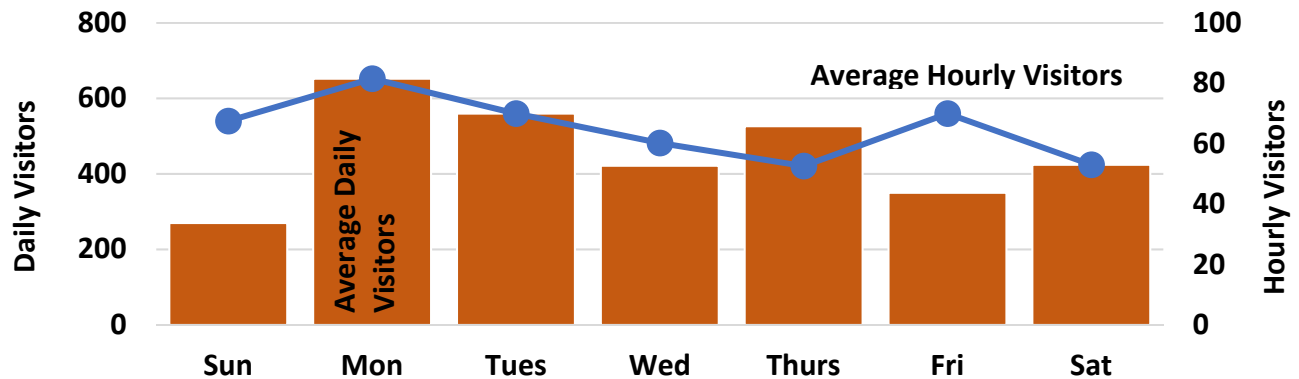


Computer and WiFi Logins



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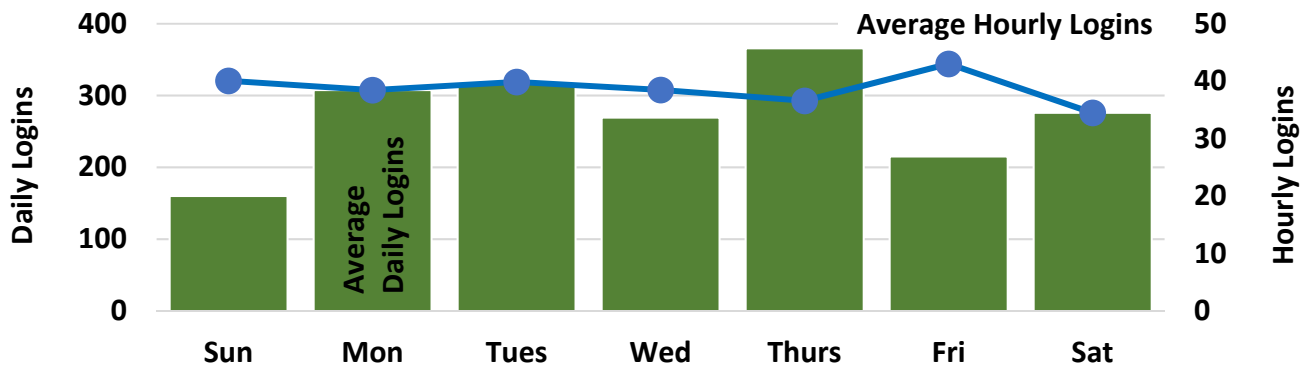
Visitor Traffic



Average Traffic by Hour and Day of Week*

Sunday				150	119	129	142			
Monday	302	224	105	124	115	166	140	129		
Tuesday	185	159	101	101	135	157	164	118		
Wednesday				154	134	154	147	123	72	58
Thursday	131	100	87	129	111	146	123	105	64	57
Friday				149	127	164	124	136		
Saturday	116	103	97	103	107	115	109	98		
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM

Computer and WiFi Logins

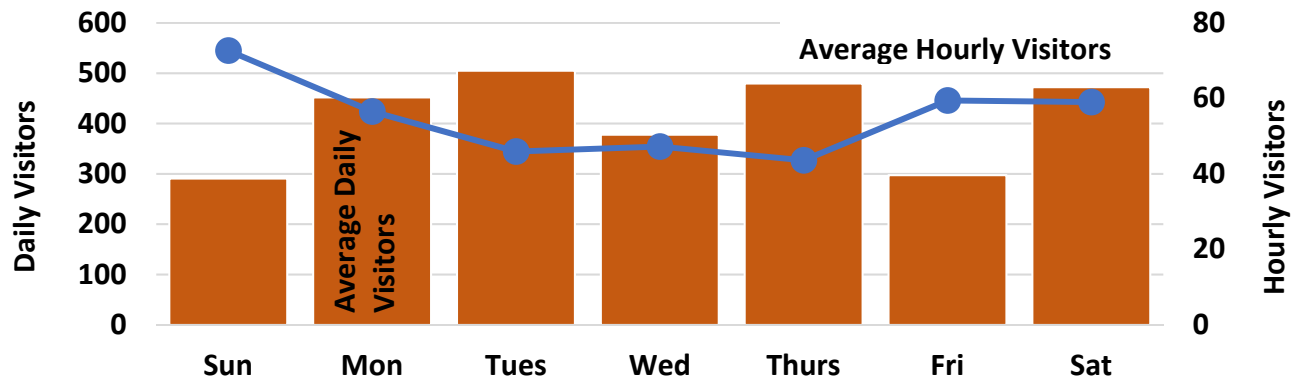


Average Logins by Hour and Day of Week*

Sunday				39	41	43	37			
Monday	35	41	37	34	36	46	43	37		
Tuesday	34	43	35	30	40	55	46	36		
Wednesday				33	43	54	52	39	28	21
Thursday	31	37	32	35	41	52	51	38	26	24
Friday				31	39	60	48	36		
Saturday	26	31	36	37	42	41	37	26		
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM

*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed; gray areas indicate expanded open hours as of June 2017.

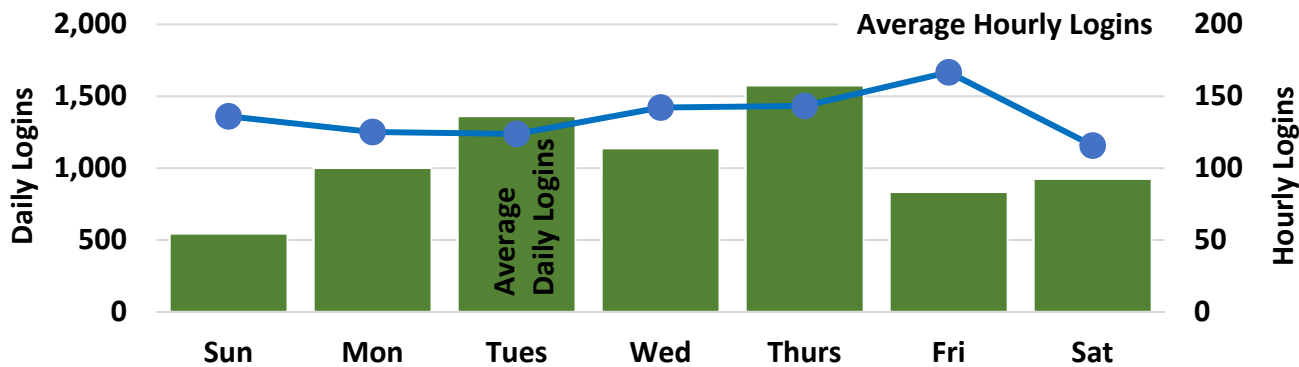
Visitor Traffic



Average Traffic by Hour and Day of Week*

Sunday				153	138	146	144				
Monday	133	102	84	99	111	124	124	127			
Tuesday	81	75	80	87	121	128	133	113	82	69	41
Wednesday				101	100	122	128	116	85	54	51
Thursday	146	96	77	82	93	111	119	87	68	45	36
Friday				120	105	121	114	135			
Saturday	105	109	107	122	140	135	118	109			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

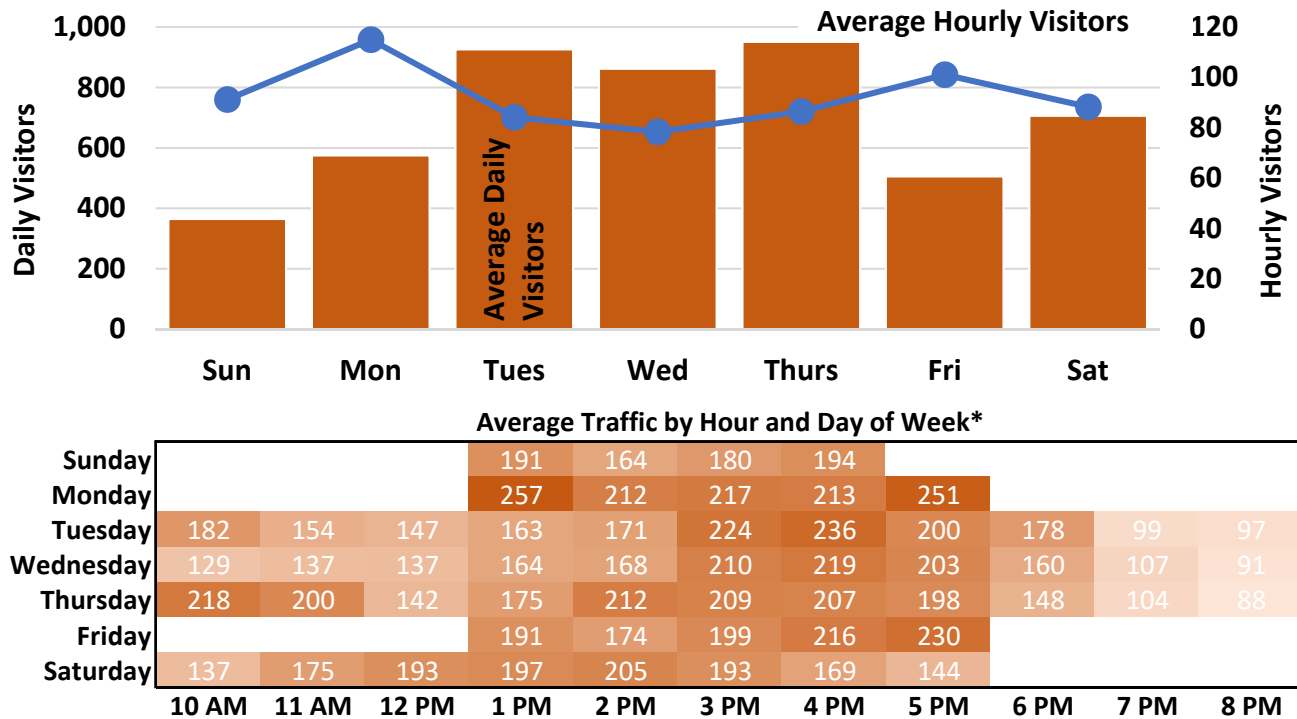
Computer and WiFi Logins



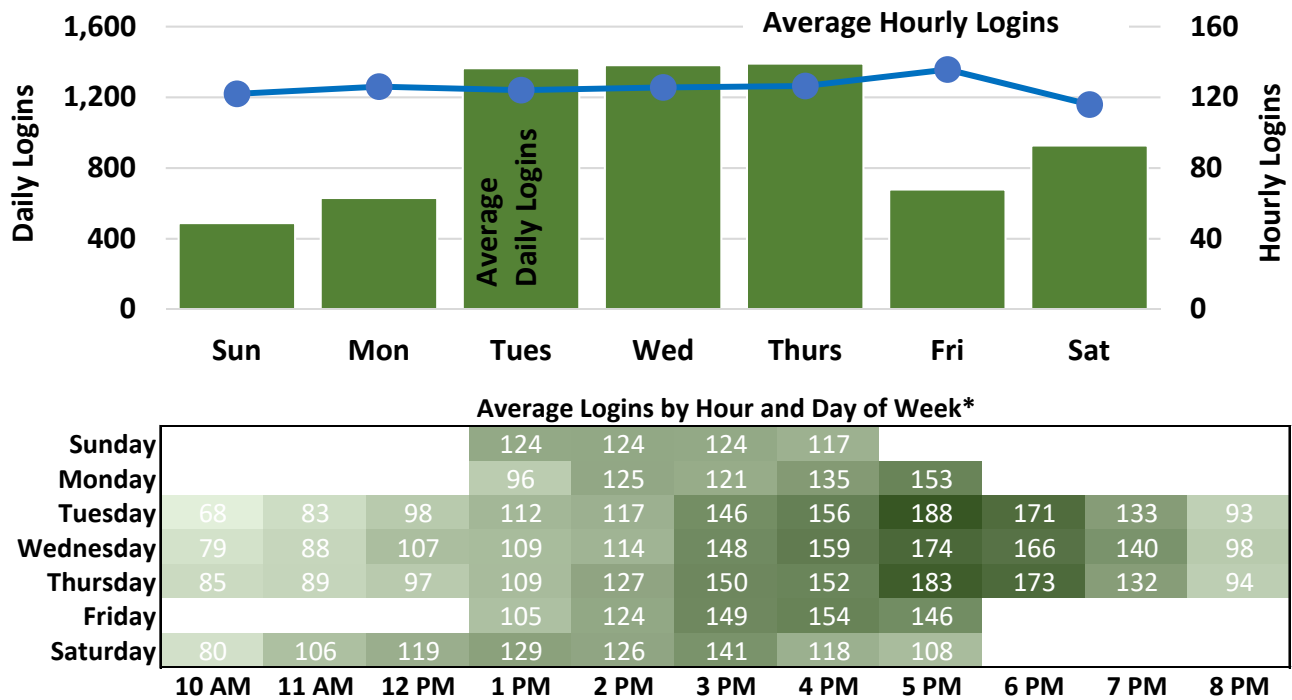
Sunday				123	137	143	141				
Monday	102	105	113	123	127	143	153	137			
Tuesday	86	101	115	115	136	165	166	152	132	107	86
Wednesday				129	151	171	164	162	142	112	106
Thursday	104	128	135	150	160	183	169	171	151	117	106
Friday				137	148	189	181	179			
Saturday	84	102	107	120	130	129	132	121			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed; gray areas indicate expanded open hours as of June 2017.

Visitor Traffic

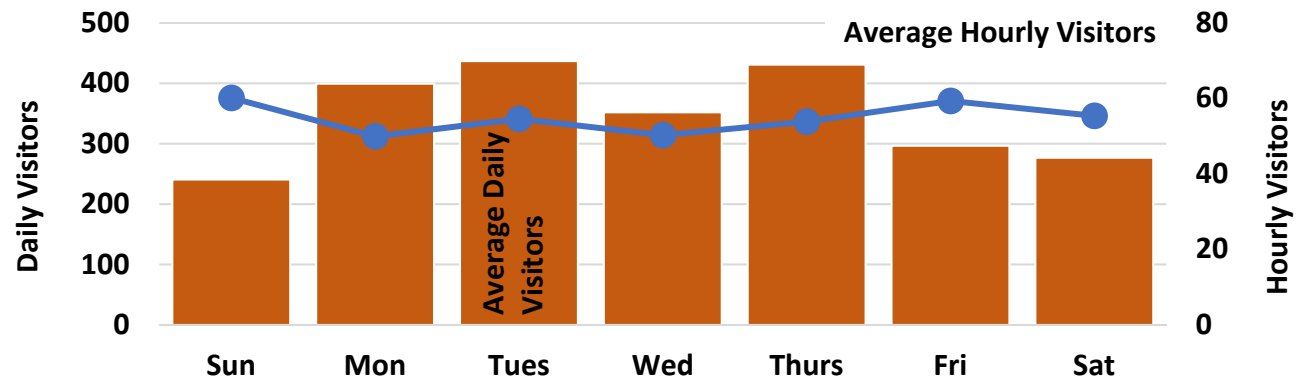


Computer and WiFi Logins



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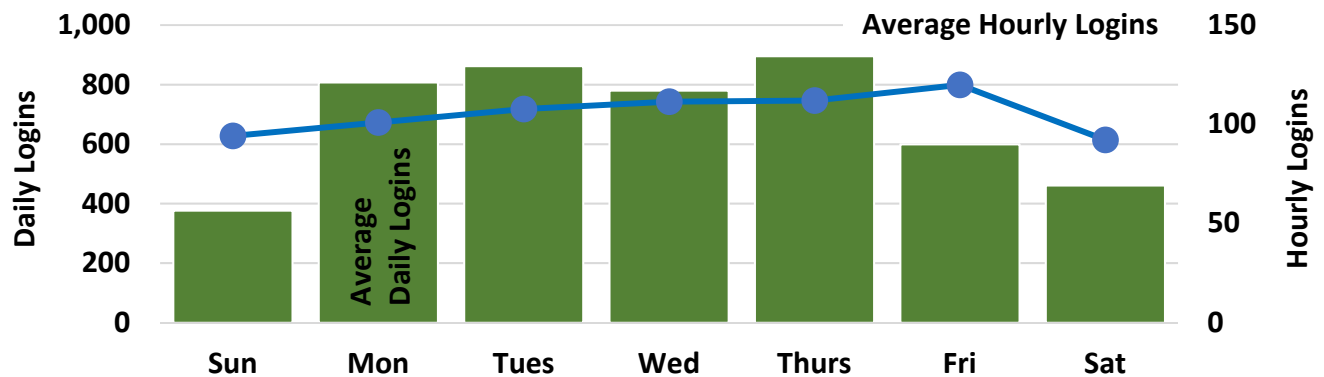
Visitor Traffic



Average Traffic by Hour and Day of Week*

Sunday				127	110	115	129			
Monday	92	81	93	112	94	98	114	114		
Tuesday	180	107	90	91	93	101	97	115		
Wednesday				118	94	100	104	113	102	73
Thursday	165	117	91	96	92	87	104	110		
Friday				134	85	98	137	139		
Saturday				122	114	112	107	99		
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM

Computer and WiFi Logins

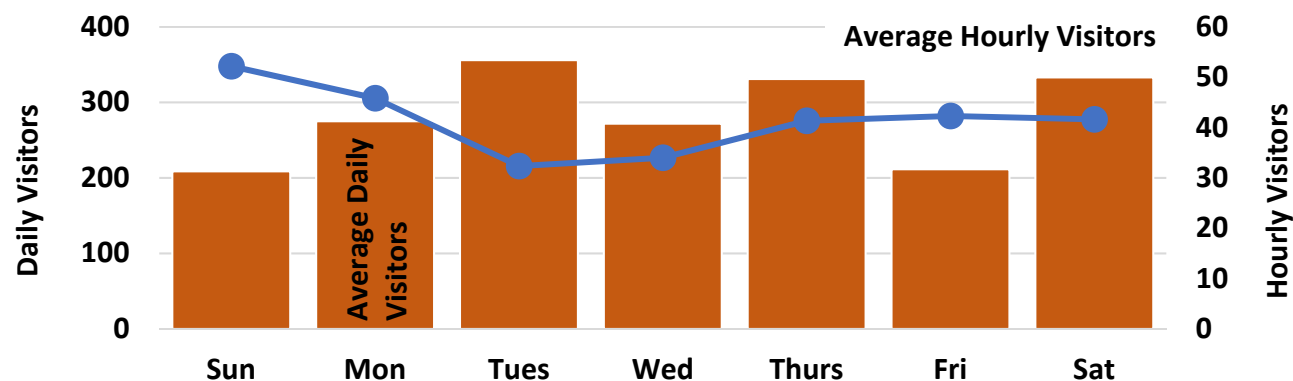


Average Logins by Hour and Day of Week*

Sunday				93	99	96	89			
Monday	86	82	92	104	99	103	114	127		
Tuesday	100	97	96	91	105	106	127	140		
Wednesday				102	111	103	122	136	126	80
Thursday	101	97	103	101	110	108	130	145		
Friday				103	107	110	140	138		
Saturday				97	95	94	92	83		
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM

*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed; gray areas indicate expanded open hours as of June 2017.

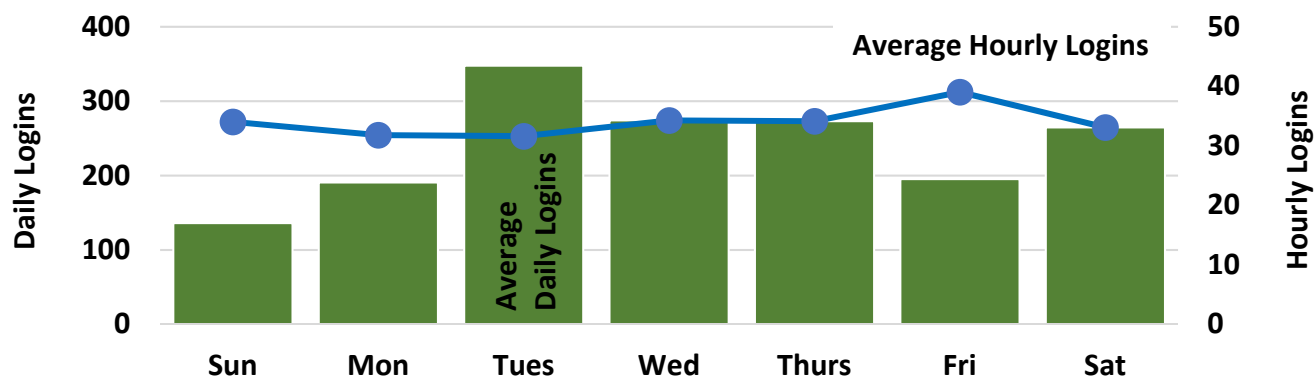
Visitor Traffic



Average Traffic by Hour and Day of Week*

Average Frames by Hour and Day of Week											
Sunday				103	92	95	127				
Monday	82			70	82	89	112	115			
Tuesday	72	53	59	60	74	87	92	80	51	40	44
Wednesday				82	66	83	107	76	49	39	42
Thursday	125	78	61	55	70	89	92	92			
Friday				91	82	78	94	78			
Saturday	76	85	78	83	85	89	91	80			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

Computer and WiFi Logins

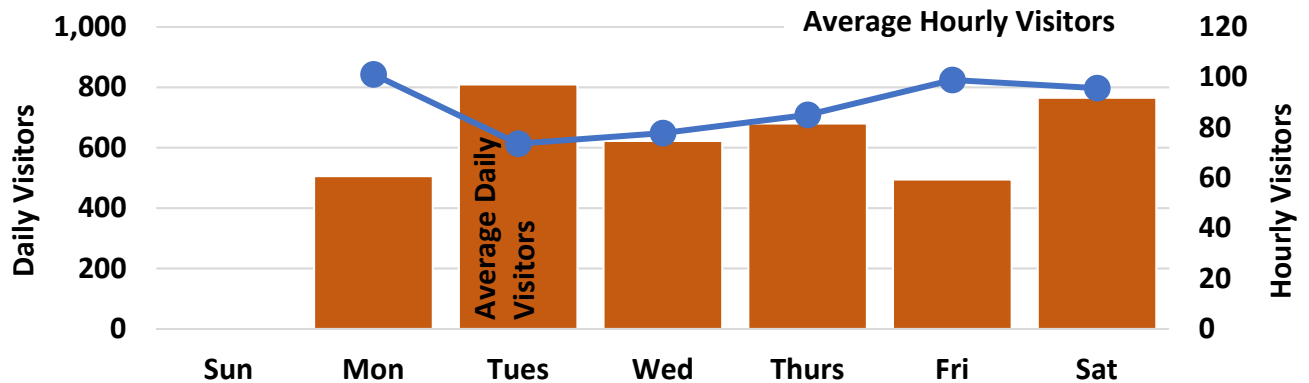


Average Logins by Hour and Day of Week*

Sunday				29	35	38	34				
Monday	22			28	35	34	40	31			
Tuesday	21	26	32	35	39	41	45	36	28	24	21
Wednesday				29	42	45	44	32	32	27	23
Thursday	30	32	31	32	33	39	44	30			
Friday				35	37	50	42	31			
Saturday	27	30	33	33	37	38	36	29			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed; gray areas indicate expanded open hours as of June 2017.

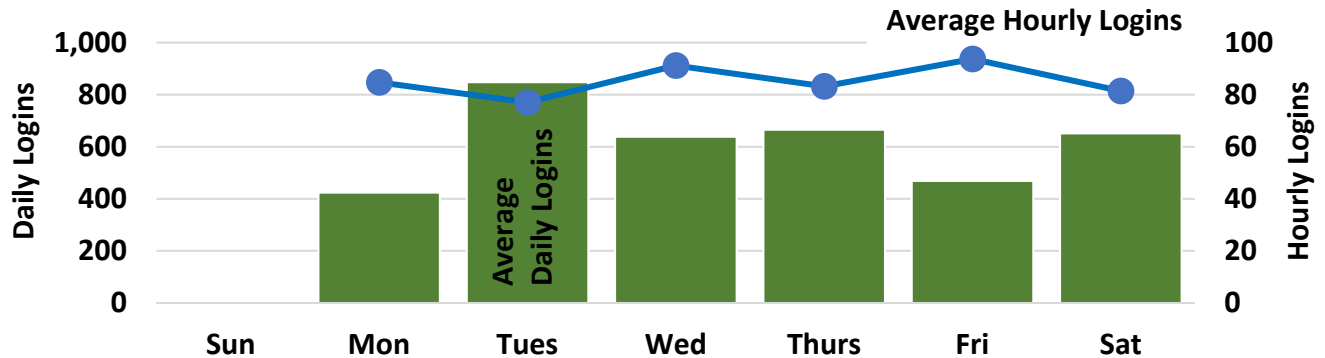
Visitor Traffic



Average Traffic by Hour and Day of Week*

Sunday											
Monday				210	182	212	200	206			
Tuesday	183	163	131	136	139	201	202	184	120	87	74
Wednesday				197	175	211	188	179	139	83	73
Thursday	226	156	114	126	167	183	174	214			
Friday				184	162	226	200	217			
Saturday	163	165	166	197	218	212	221	188			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

Computer and WiFi Logins

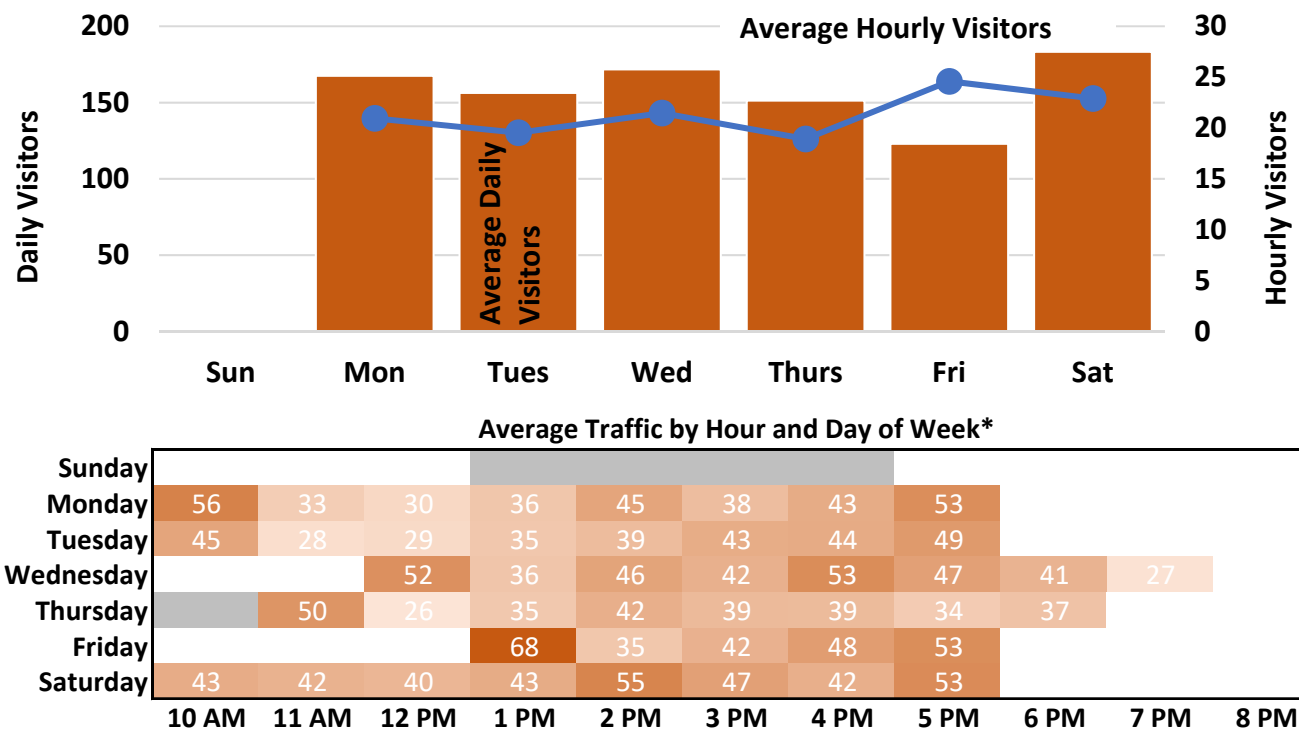


Average Logins by Hour and Day of Week*

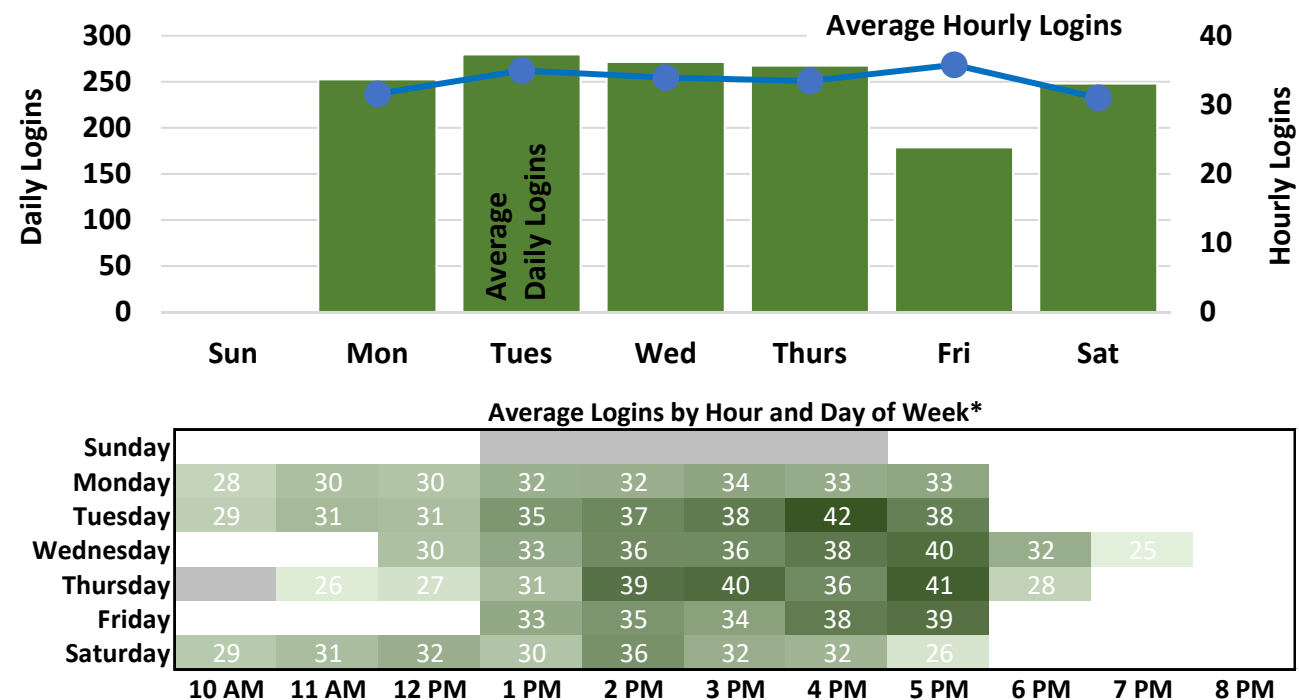
Sunday											
Monday				66	77	105	97	79			
Tuesday	61	68	64	73	78	117	108	94	78	66	43
Wednesday				73	91	119	114	93	82	66	
Thursday	59	68	57	74	91	118	111	87			
Friday				72	78	117	111	91			
Saturday	62	66	70	82	97	105	92	78			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed; gray areas indicate expanded open hours as of June 2017.

Visitor Traffic

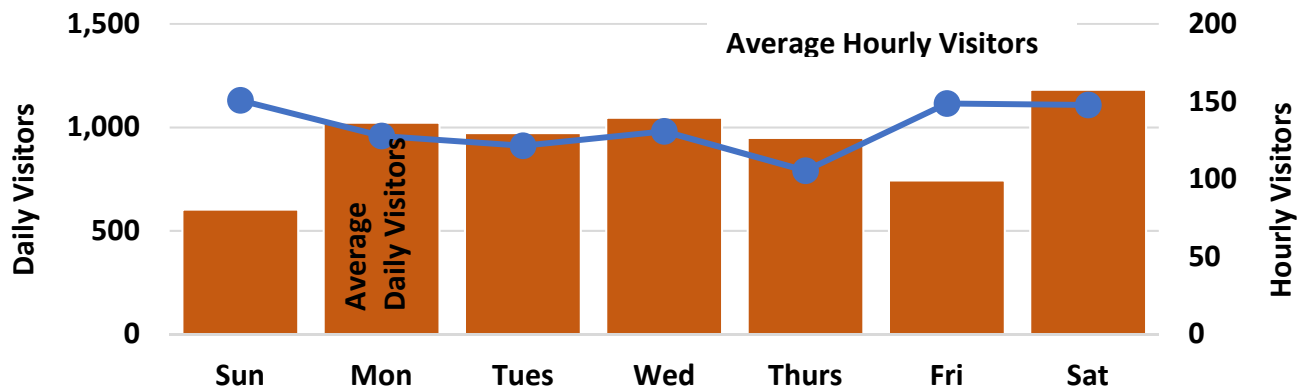


Computer and WiFi Logins



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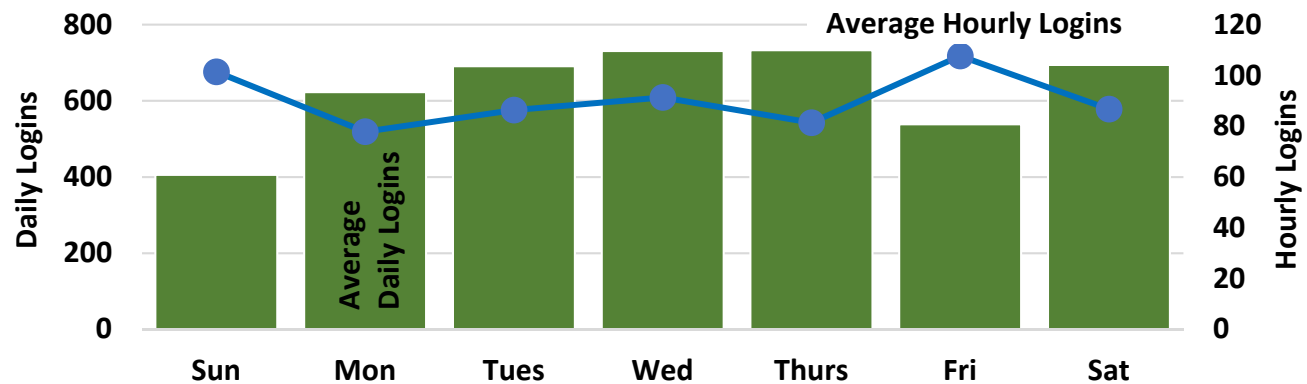
Visitor Traffic



Average Traffic by Hour and Day of Week*

Sunday				286	282	314	325			
Monday	298	196	143	143	214	486	293	273		
Tuesday	278	172	134	131	230	408	319	274		
Wednesday				262	229	474	360	320	207	124
Thursday			136	127	193	433	334	291	172	105
Friday				167	186	485	359	290		
Saturday	231	263	279	311	376	357	333	214		
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM

Computer and WiFi Logins

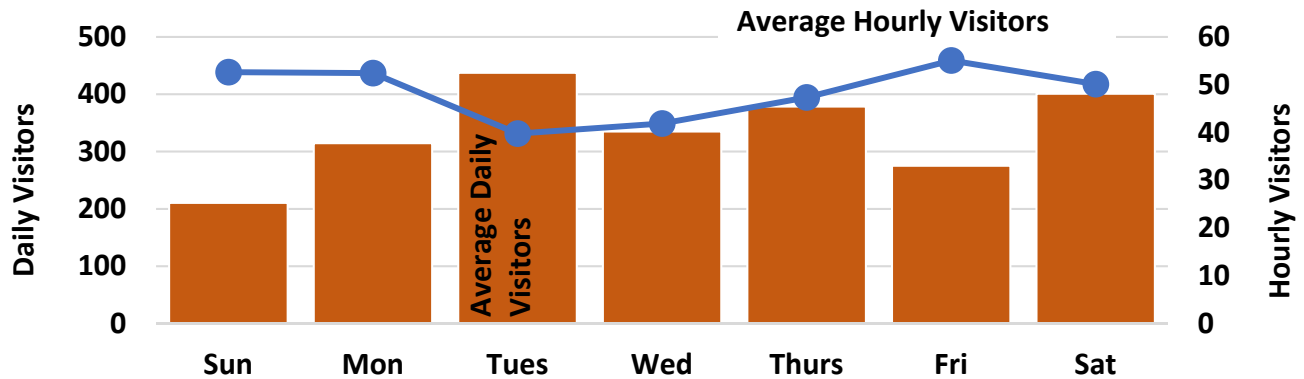


Average Logins by Hour and Day of Week*

Sunday				83	107	113	104			
Monday	60	52	53	61	73	131	112	80		
Tuesday	49	59	56	62	76	154	135	100		
Wednesday				63	85	164	137	105	75	60
Thursday			42	54	82	149	129	97	72	61
Friday				57	75	166	142	98		
Saturday	62	82	80	96	102	106	95	71		
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM

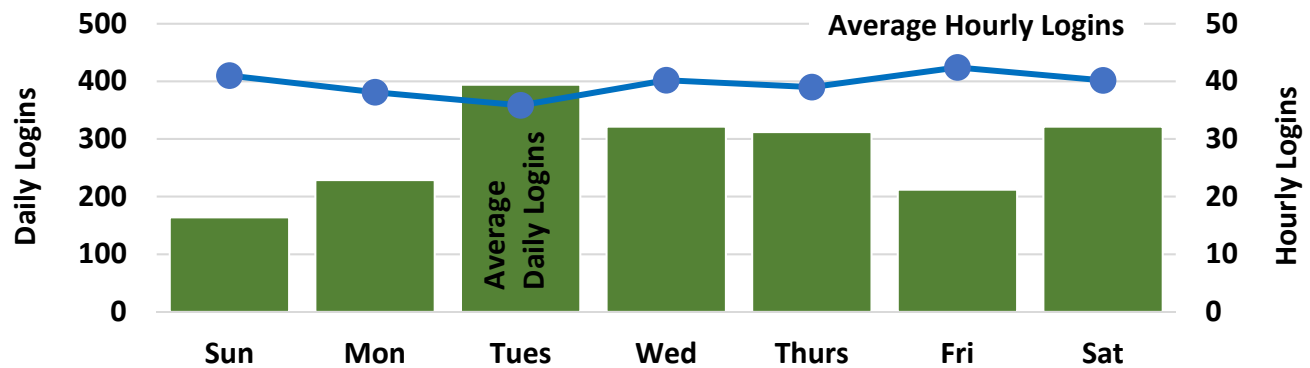
*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed; gray areas indicate expanded open hours as of June 2017.

Visitor Traffic



Sunday				105	91	97	129				
Monday			99	91	105	112	107	116			
Tuesday	78	79	69	87	92	102	112	94	68	48	47
Wednesday				107	102	101	102	85	73	49	52
Thursday	99	93	85	87	94	96	99	104			
Friday				115	103	115	99	119			
Saturday	80	103	101	94	103	100	110	111			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

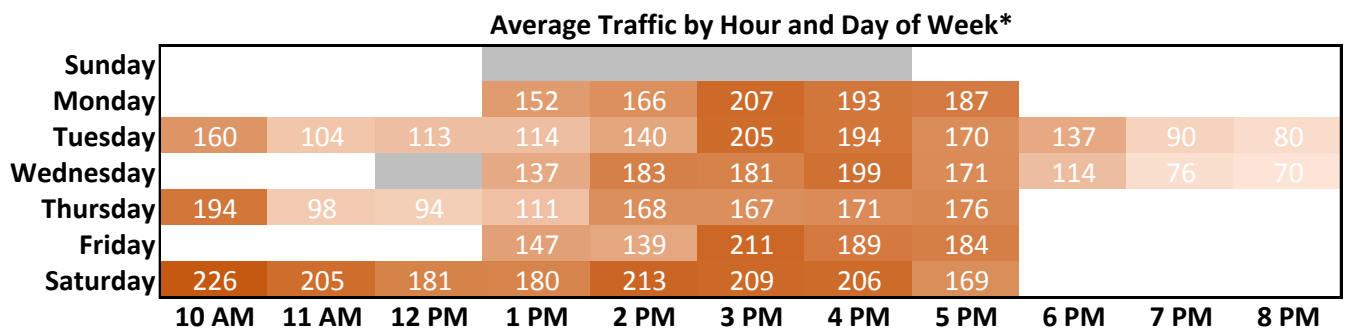
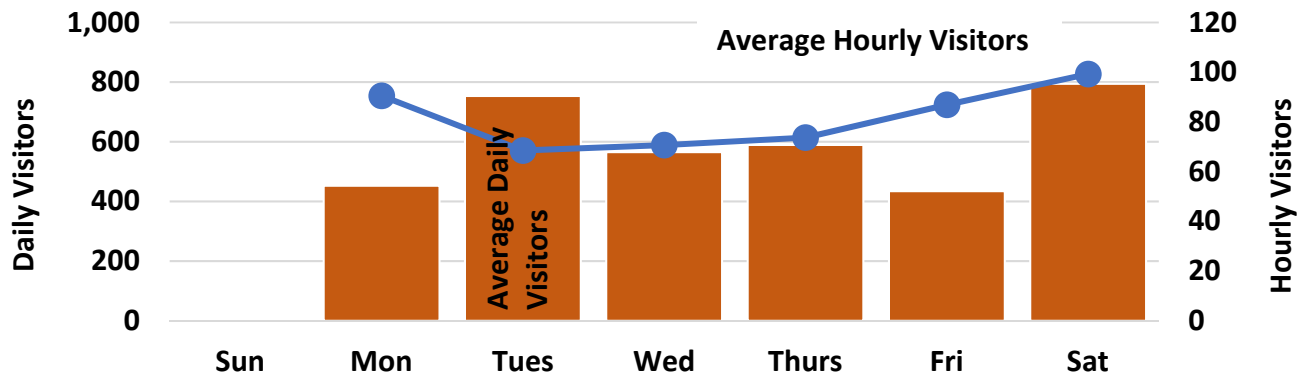
Computer and WiFi Logins



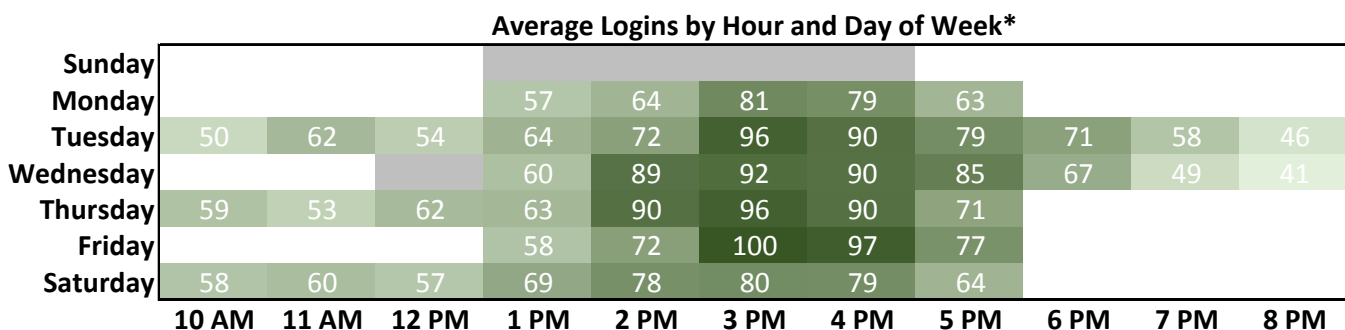
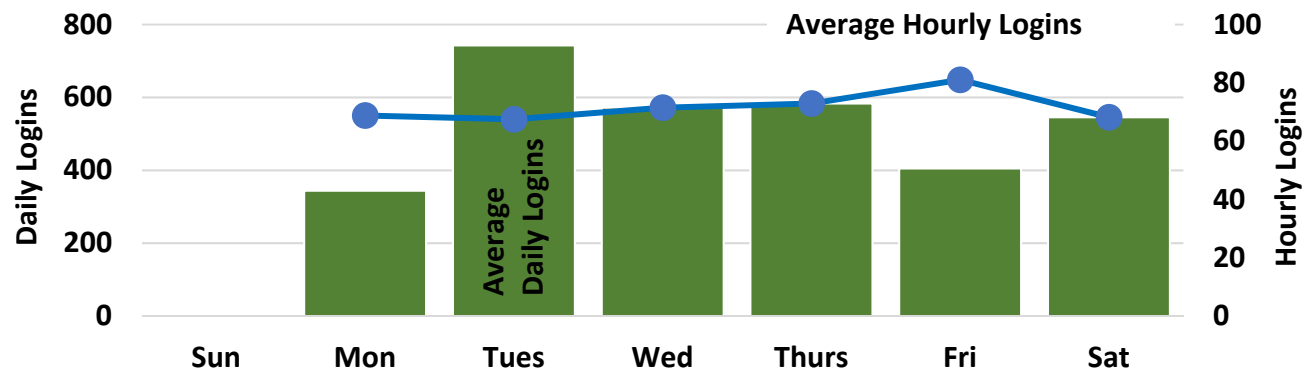
Average Logins by Hour and Day of Week*											
Sunday				40	42	44	39				
Monday	30			36	38	45	41	37			
Tuesday	28	34	36	41	41	42	40	39	37	32	26
Wednesday				41	41	46	45	46	35	37	30
Thursday	39	43	40	36	38	40	41	34			
Friday				41	46	48	43	35			
Saturday	27	38	37	39	45	50	51	34			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed; gray areas indicate expanded open hours as of June 2017.

Visitor Traffic

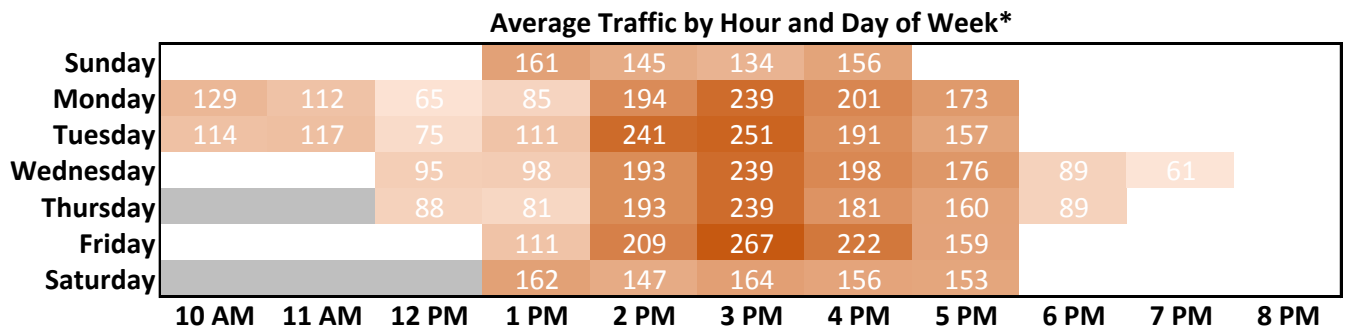
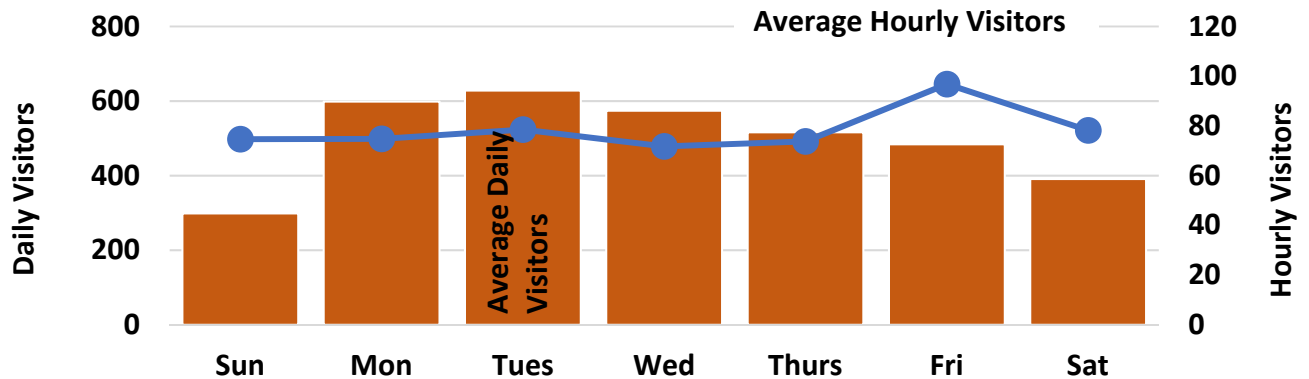


Computer and WiFi Logins

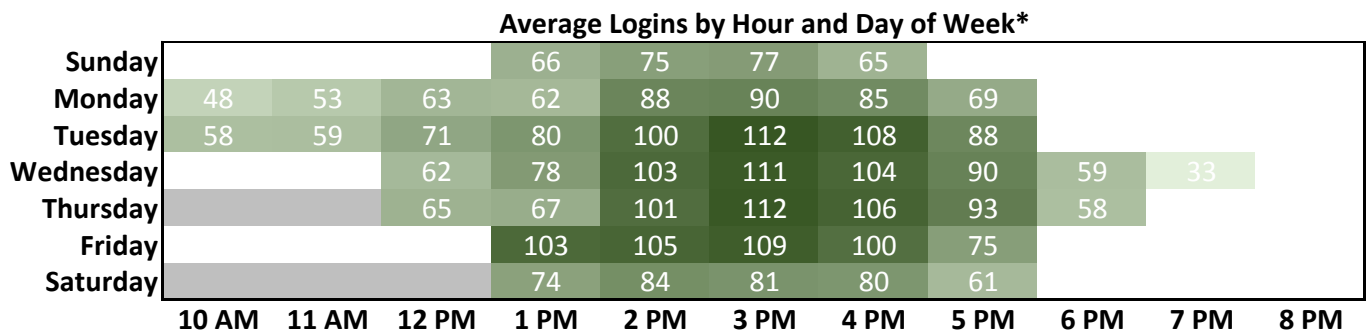
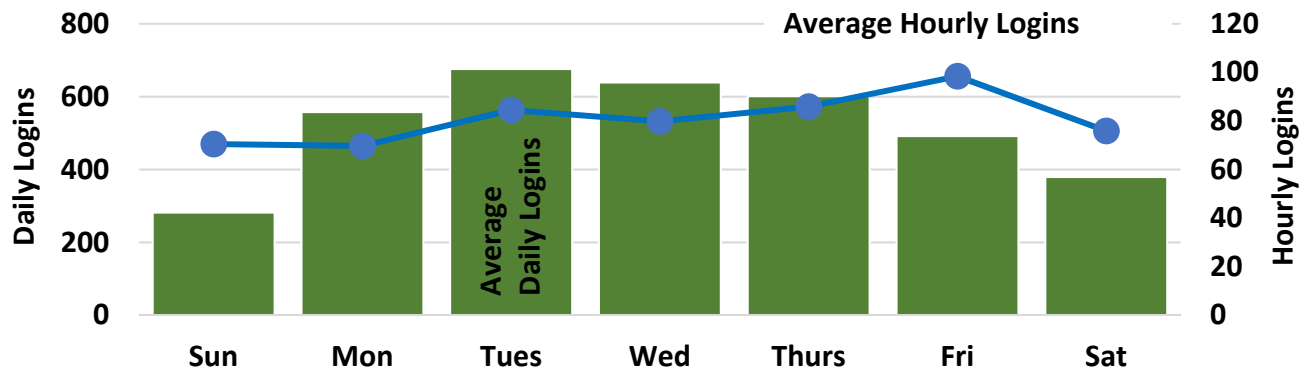


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Visitor Traffic

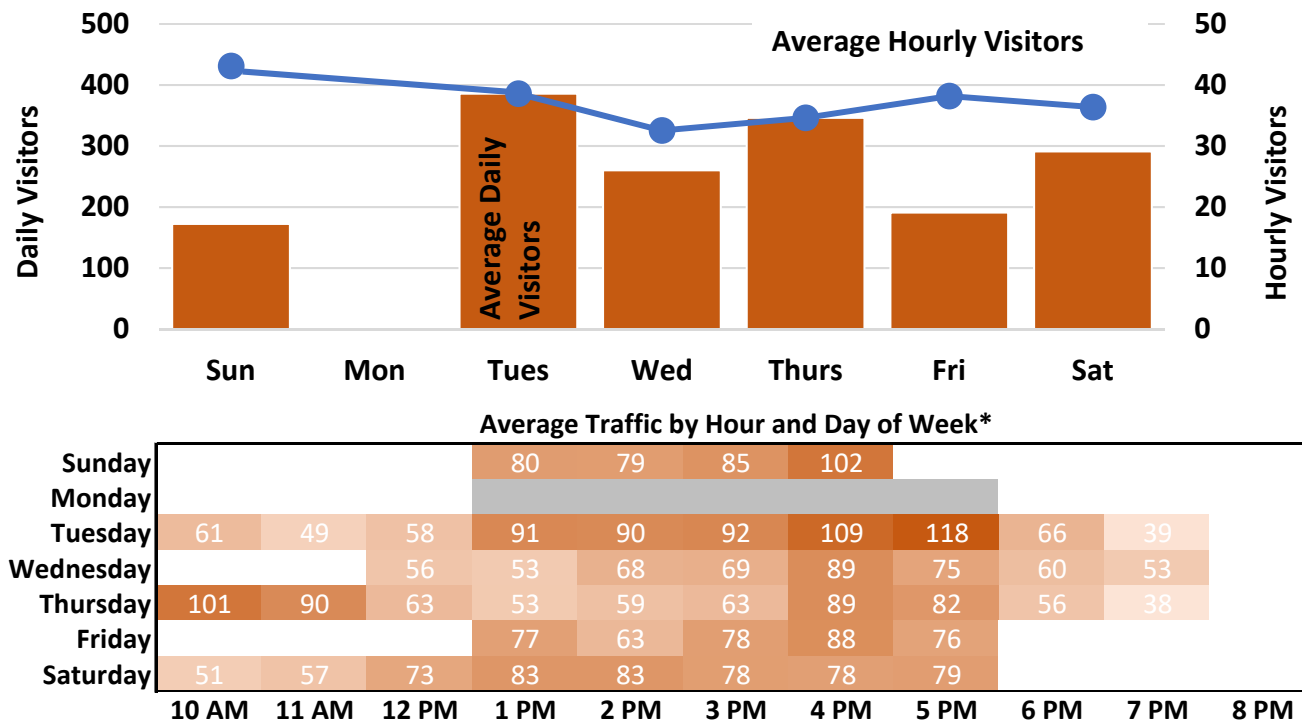


Computer and WiFi Logins

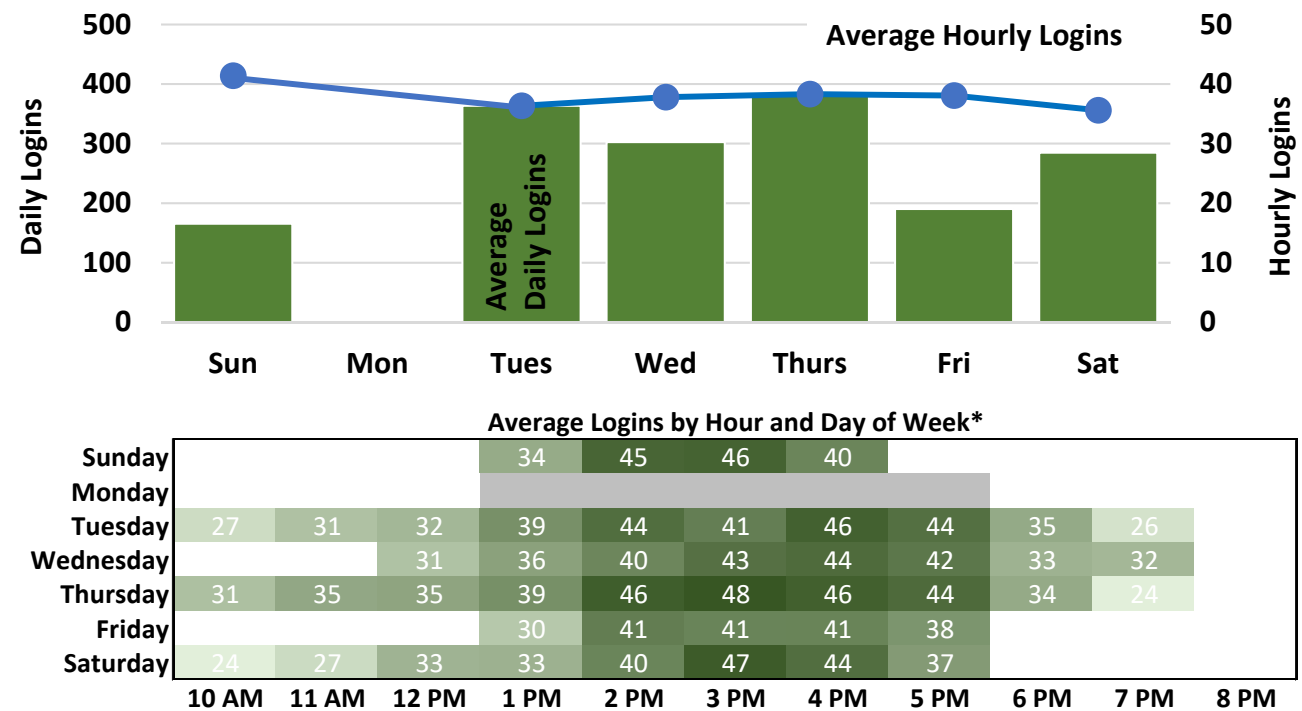


*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed; gray areas indicate expanded open hours as of June 2017.

Visitor Traffic

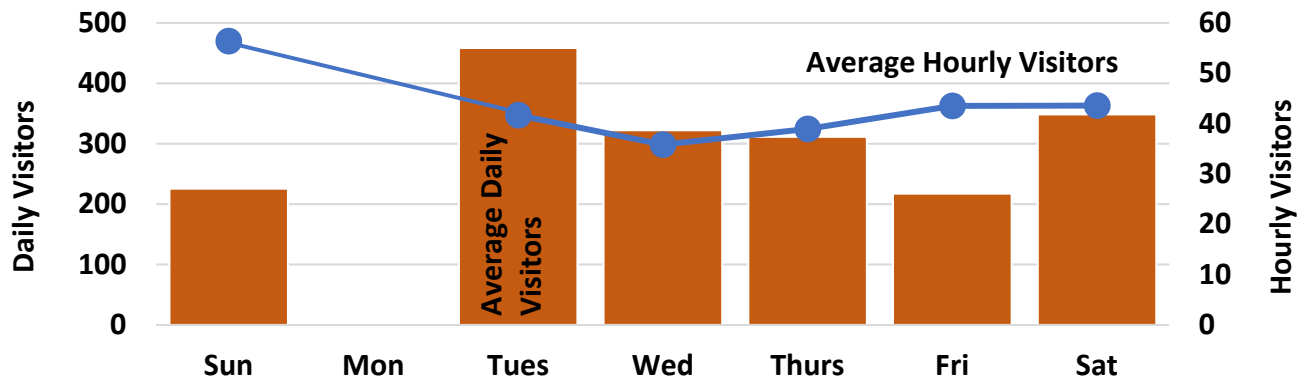


Computer and WiFi Logins



*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed; gray areas indicate expanded open hours as of June 2017.

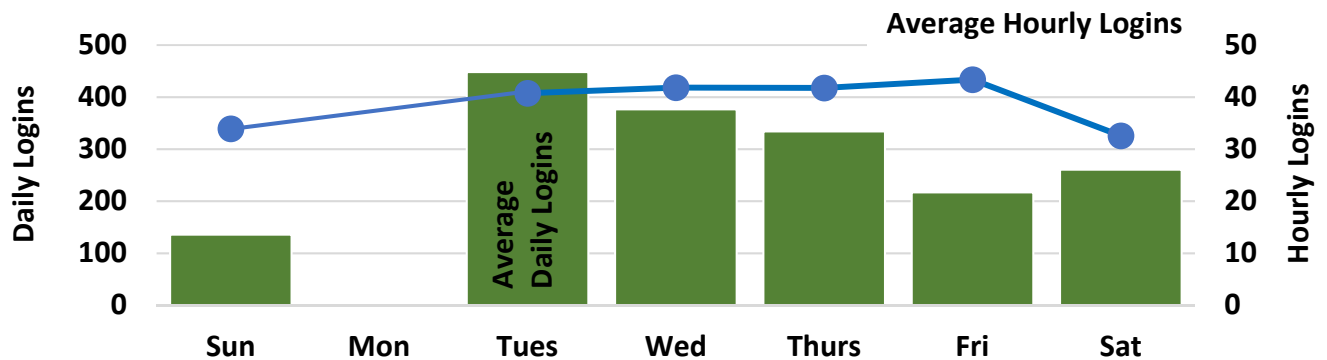
Visitor Traffic



Average Traffic by Hour and Day of Week*

Sunday				114	96	114	128				
Monday											
Tuesday	116	97	82	85	92	104	121	87	60	42	30
Wednesday			61	85	104	94	100	77	55	36	33
Thursday	81	75	65	71	84	85	89	74			
Friday				92	76	97	92	78			
Saturday	71	70	91	101	97	102	93	71			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

Computer and WiFi Logins

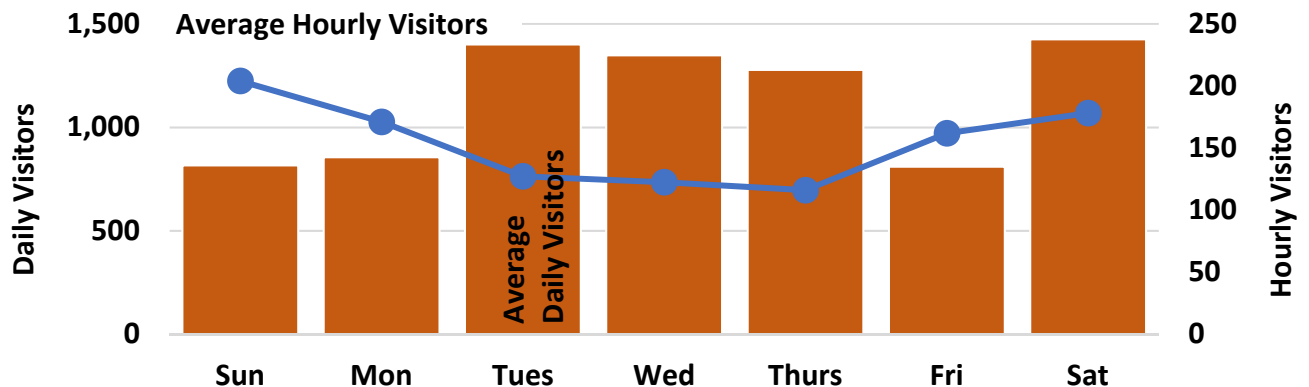


Average Logins by Hour and Day of Week*

Sunday				32	37	36	30				
Monday											
Tuesday	40	39	40	42	44	50	54	49	37	30	24
Wednesday			32	45	54	57	55	47	36	29	21
Thursday	48	43	36	42	43	45	42	35			
Friday				38	43	53	47	36			
Saturday	23	27	31	35	37	38	39	32			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed; gray areas indicate expanded open hours as of June 2017.

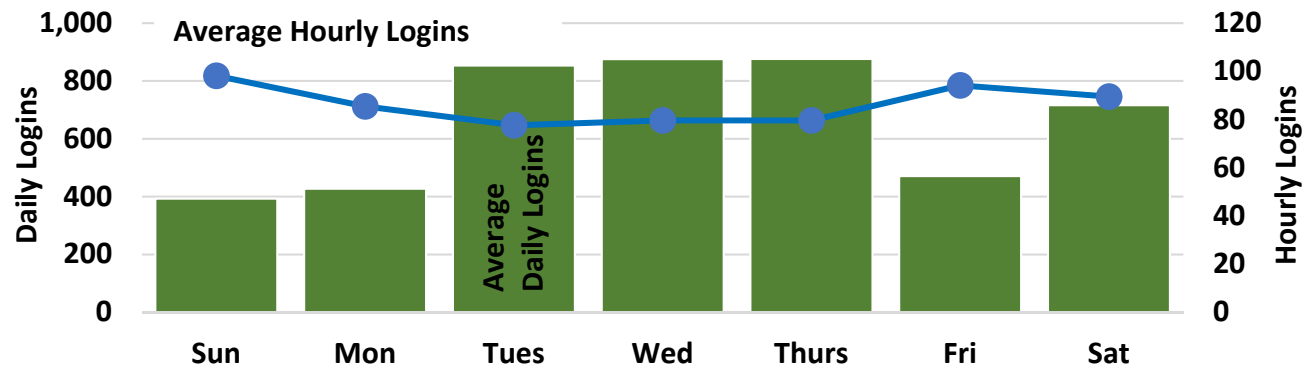
Visitor Traffic



Average Traffic by Hour and Day of Week*

Sunday				501	370	379	382			
Monday				386	332	350	337	305		
Tuesday	276	273	268	297	302	328	335	267	200	131
Wednesday	308	270	232	260	281	342	326	264	191	120
Thursday	274	254	209	266	293	305	311	251	185	108
Friday				323	291	360	341	305		
Saturday	338	362	353	386	398	387	355	271		
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM

Computer and WiFi Logins

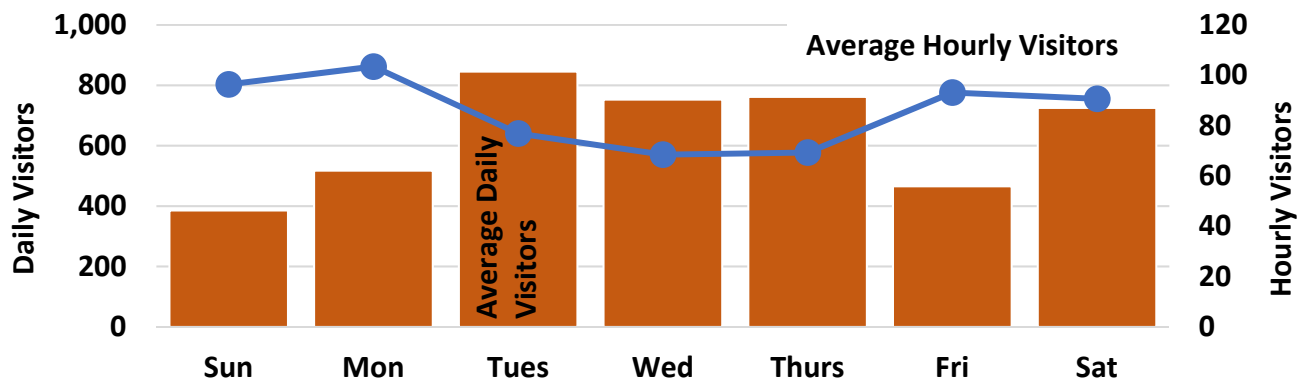


Average Logins by Hour and Day of Week*

Sunday				95	102	102	93			
Monday				75	84	93	100	75		
Tuesday	67	78	73	83	90	97	98	90	77	61
Wednesday	64	77	81	84	90	105	105	95	72	61
Thursday	64	77	79	83	88	102	100	93	78	67
Friday				78	93	109	105	85		
Saturday	63	79	83	88	111	114	101	76		
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM

*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed; gray areas indicate expanded open hours as of June 2017.

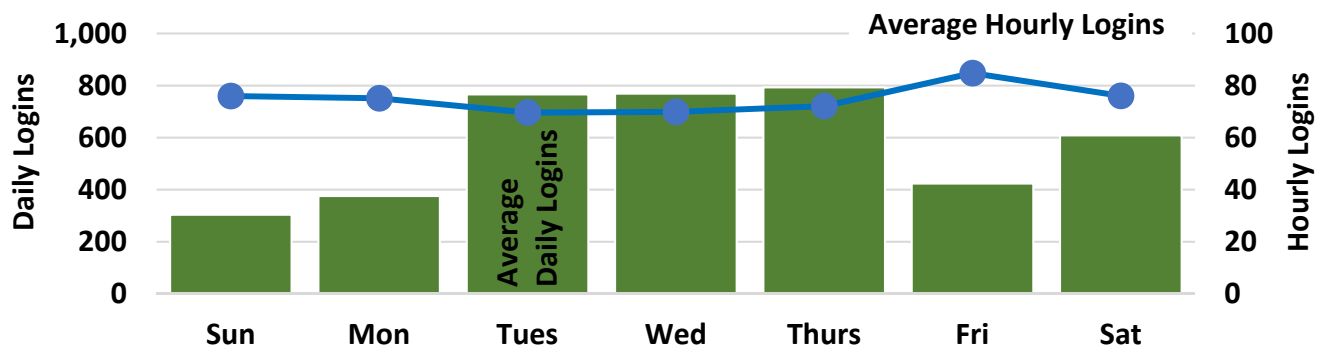
Visitor Traffic



Average Traffic by Hour and Day of Week*

Sunday				214	190	179	188				
Monday				209	236	199	201	190			
Tuesday	204	151	122	145	191	201	202	191	133	77	75
Wednesday	126	106	114	145	203	189	197	158	121	81	65
Thursday	169	120	111	137	178	176	193	165	121	87	67
Friday				189	194	192	182	173			
Saturday	190	156	184	203	199	193	181	143			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

Computer and WiFi Logins

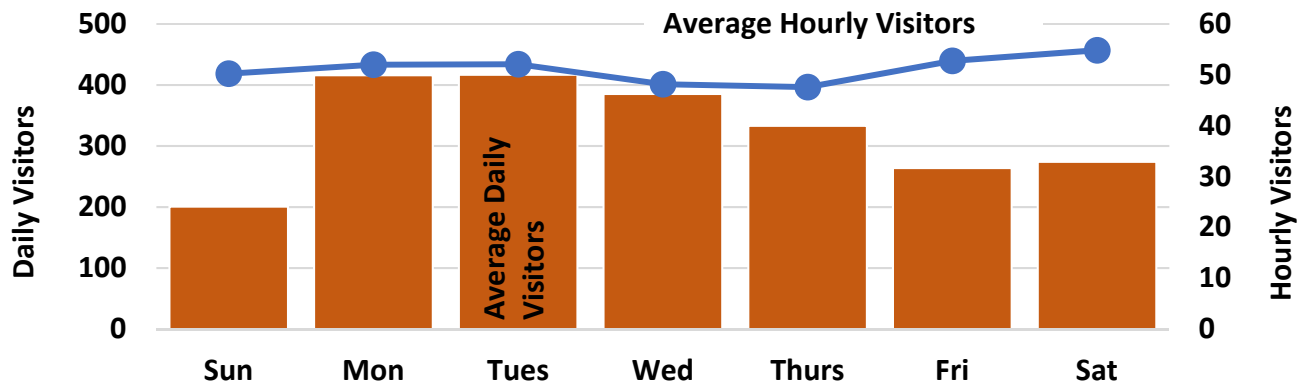


Average Logins by Hour and Day of Week*

Sunday				72	81	81	70				
Monday				62	79	80	81	73			
Tuesday	56	60	55	64	92	94	89	91	72	54	38
Wednesday	53	55	61	70	88	85	90	96	77	54	40
Thursday	59	62	59	69	92	90	91	91	80	61	39
Friday				65	94	85	95	84			
Saturday	70	82	78	84	82	76	75	61			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

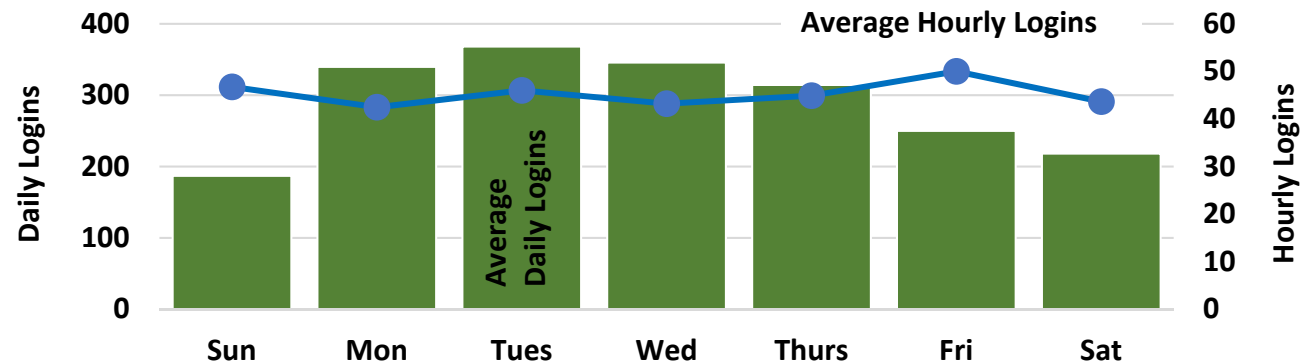
*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed; gray areas indicate expanded open hours as of June 2017.

Visitor Traffic



Sunday				107	97	91	106				
Monday	81	95	74	78	93	117	144	151			
Tuesday	80	96	73	76	94	139	127	149			
Wednesday			62	69	95	143	150	141	71	41	
Thursday			64	66	88	128	136	125	60		
Friday				82	86	111	131	118			
Saturday				117	115	110	107	100			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

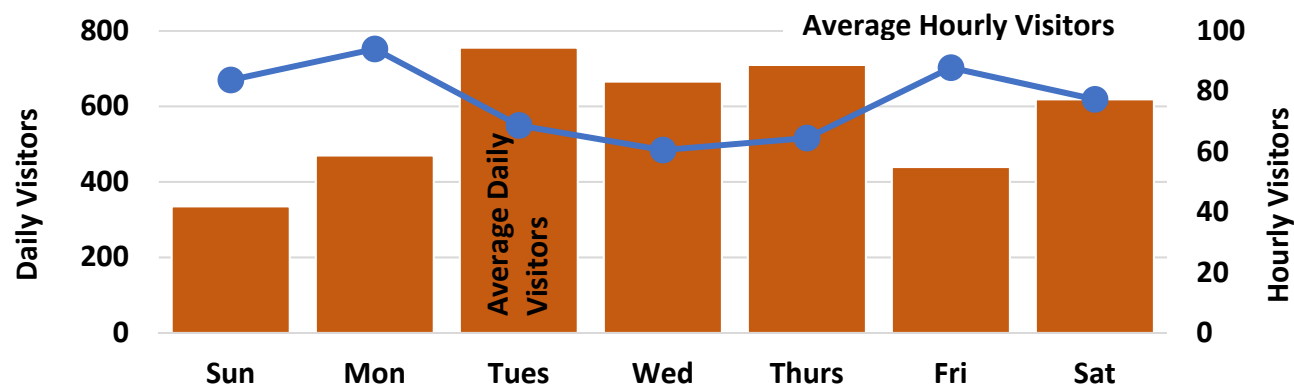
Computer and WiFi Logins



Sunday				38	48	55	46				
Monday	27	37	36	38	45	54	56	46			
Tuesday	29	38	36	43	47	56	62	58			
Wednesday				30	36	47	61	59	55	33	25
Thursday				32	35	40	52	58	59	38	
Friday				38	49	59	56	48			
Saturday				42	48	47	46	35			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed; gray areas indicate expanded open hours as of June 2017.

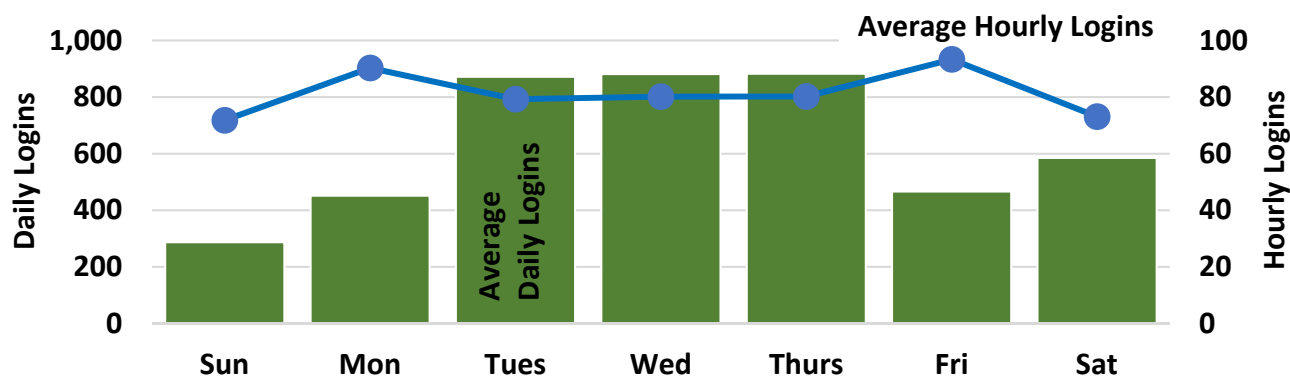
Visitor Traffic



Average Traffic by Hour and Day of Week*

Sunday				166	158	167	180				
Monday				187	193	198	174	187			
Tuesday	169	150	100	127	168	203	186	146	115	79	68
Wednesday	104	87	100	126	156	188	183	150	113	61	63
Thursday	154	128	97	111	138	189	191	149	119	74	72
Friday				152	159	214	195	158			
Saturday	147	150	131	175	174	173	165	123			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

Computer and WiFi Logins

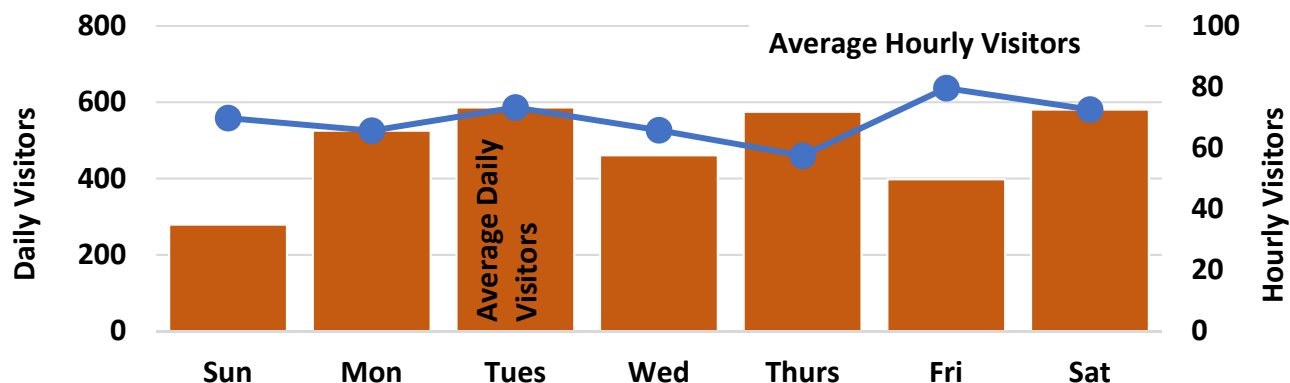


Average Logins by Hour and Day of Week*

Sunday				70	73	77	67				
Monday				84	88	94	91	94			
Tuesday	61	66	65	77	79	104	113	117	95	57	38
Wednesday	56	60	65	69	89	118	110	106	100	63	48
Thursday	56	65	61	69	88	103	110	112	101	68	49
Friday				62	72	102	118	112			
Saturday	52	63	76	84	79	84	77	69			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed; gray areas indicate expanded open hours as of June 2017.

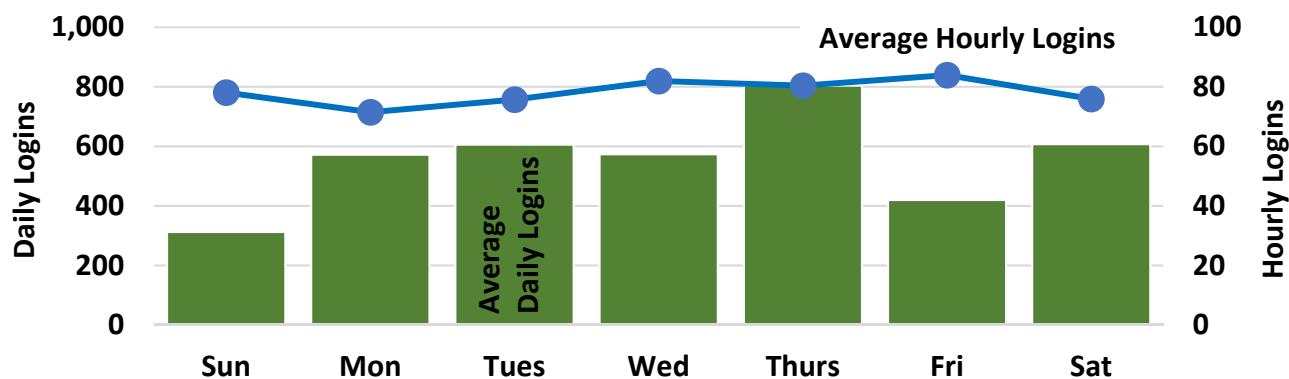
Visitor Traffic



Average Traffic by Hour and Day of Week*

Sunday				162	135	125	137				
Monday	100	86	104	141	130	173	174	142			
Tuesday	181	149	118	140	124	150	172	140			
Wednesday				156	134	185	173	135	77	61	
Thursday	108	93	102	119	124	163	172	122	80	68	
Friday				176	137	186	163	134			
Saturday	159	181	145	154	144	136	131	113			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

Computer and WiFi Logins



Average Logins by Hour and Day of Week*

Sunday				72	79	86	76				
Monday	55	59	65	69	74	84	94	72			
Tuesday	58	69	67	73	80	85	93	80			
Wednesday				70	96	89	96	93	75	56	
Thursday	57	69	78	81	88	102	112	86	80	51	
Friday				74	78	101	91	76			
Saturday	63	72	80	79	81	83	81	67			
	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM

*Hourly 'traffic' includes both 'ins' and 'outs'; 'logins' include both Library computers and patron personal devices; darker colored areas indicate higher traffic/login volume; white areas indicate hours library is closed; gray areas indicate expanded open hours as of June 2017.

Appendix B: Library Visitors by Location

Library	Average Hourly Visitors ²²	Average Weekly Visitors ²³	Current Weekly Open Hours	New Hours in 2017
Main	545	32,724	60	0
Chinatown	157	8,629	55	0
Richmond	144	7,919	55	0
Ortega	130	6,518	50	0
Mission	89	4,884	55	0
North Beach	86	3,872	50	5
Sunset	81	4,449	55	0
Excelsior	80	4,399	55	0
Parkside	80	3,587	50	5
Portola	78	3,489	50	5
West Portal	73	3,992	55	0
Ingleside	69	3,094	50	5
Western Addition	68	3,408	50	0
Marina	64	3,199	50	0
Bernal Heights	63	2,835	50	5
Eureka Valley	62	2,766	55	10
Glen Park	58	2,616	50	5
Mission Bay	54	2,434	50	5
Merced	52	2,872	55	0
Visitation Valley	51	2,290	55	10
Park	47	2,356	50	0
Presidio	42	1,881	50	5
Anza	41	1,826	50	5
Noe Valley	40	1,985	50	0
Bayview	37	1,867	55	5
Potrero	37	1,648	50	5
Golden Gate Valley	34	1,512	50	5
Ocean View	21	954	50	5
System-wide	85	4,429	1,460	85

²² Data does not include June 2017 expanded hours.

Appendix C: Library Location Open Hours

Library	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
Anza	1–5	12–6	10–9	1–9	10–6	1–6	10–6
Bayview	1–5	10–6	10–8	10–8	10–8	1–6	10–6
Bernal Heights	1–5	10–6	10–9	12–9	10–6	1–6	1–6
Chinatown	1–5	1–6	10–9	10–9	10–9	1–6	10–6
Eureka Valley	1–5	10–6	10–9	10–9	10–6	1–6	10–6
Excelsior	1–5	1–6	10–9	10–9	10–9	1–6	10–6
Glen Park	1–5	10–6	10–6	12–8	10–7	1–6	10–6
Golden Gate	1–5	10–6	10–6	12–9	12–8	1–6	10–6
Ingleside	1–5	10–6	10–6	10–8	12–7	1–6	10–6
Main	12–5	10–6	9–8	9–8	9–8	12–6	10–6
Marina	1–5	10–6	10–6	1–8	10–8	1–6	10–6
Merced	1–5	10–6	10–9	1–9	10–9	1–6	10–6
Mission	1–5	1–6	10–9	10–9	10–9	1–6	10–6
Mission Bay	1–5	10–6	10–6	11–8	10–6	1–6	10–6
Noe Valley	1–5	12–6	10–9	1–9	10–6	1–6	10–6
North Beach	1–5	1–6	10–9	12–9	10–6	1–6	10–6
Ocean View	1–5	10–6	10–6	12–8	10–7	1–6	10–6
Ortega	1–5	10–6	10–6	1–9	12–9	1–6	10–6
Park	1–5	12–6	10–9	1–9	10–6	1–6	10–6
Parkside	1–5	1–6	10–9	12–9	10–6	1–6	10–6
Portola	1–5	10–6	10–6	12–8	10–7	1–6	10–6
Potrero	1–5	1–6	10–8	12–8	10–8	1–6	10–6
Presidio	1–5	1–6	10–9	12–9	10–6	1–6	10–6
Richmond	1–5	1–6	10–9	10–9	10–9	1–6	10–6
Sunset	1–5	1–6	10–9	10–9	10–9	1–6	10–6
Visitation Valley	1–5	10–6	10–8	10–8	10–8	1–6	10–6
West Portal	1–5	1–6	10–9	10–9	10–9	1–6	10–6
Western Addition	1–5	10–6	10–6	1–8	10–8	1–6	10–6