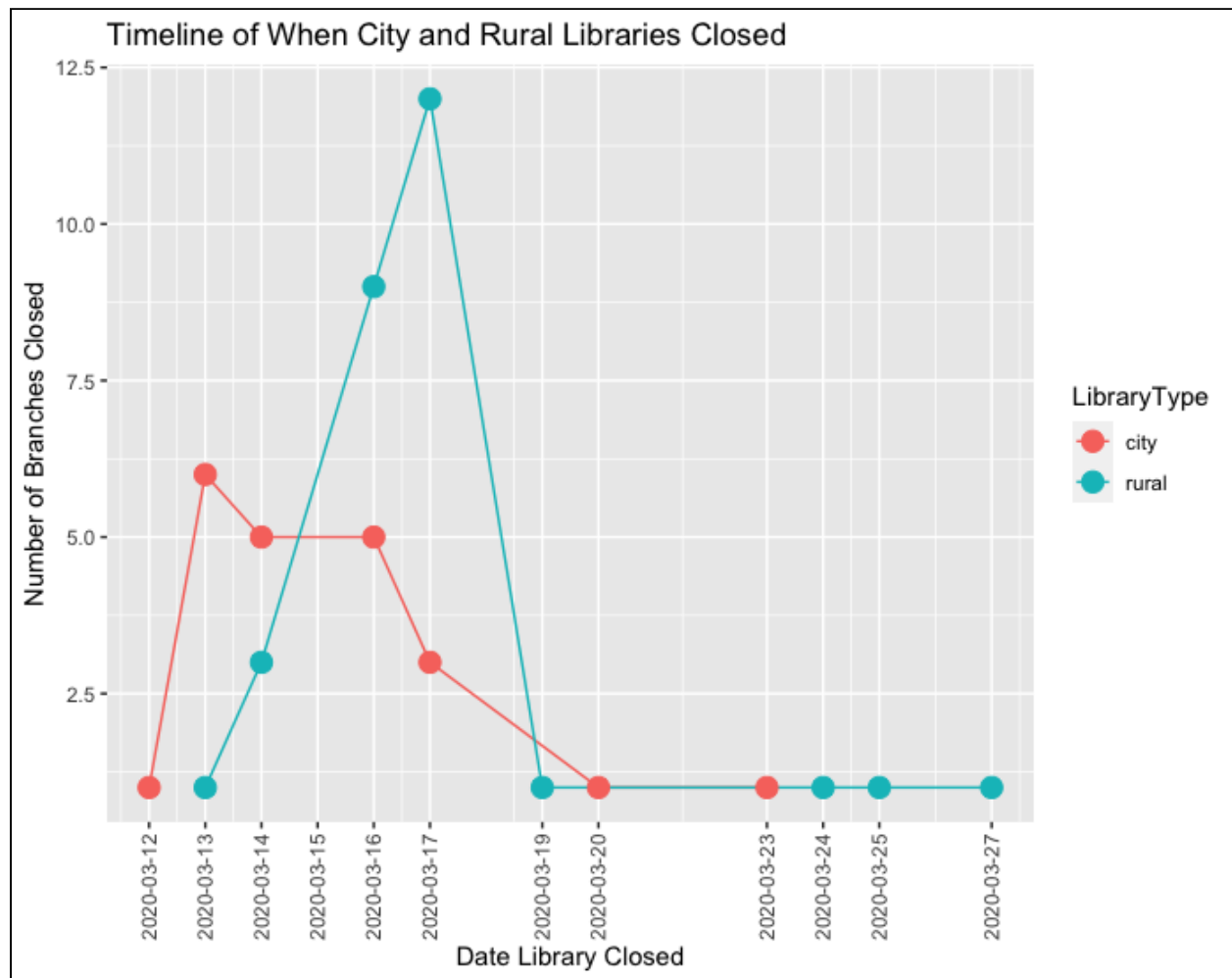


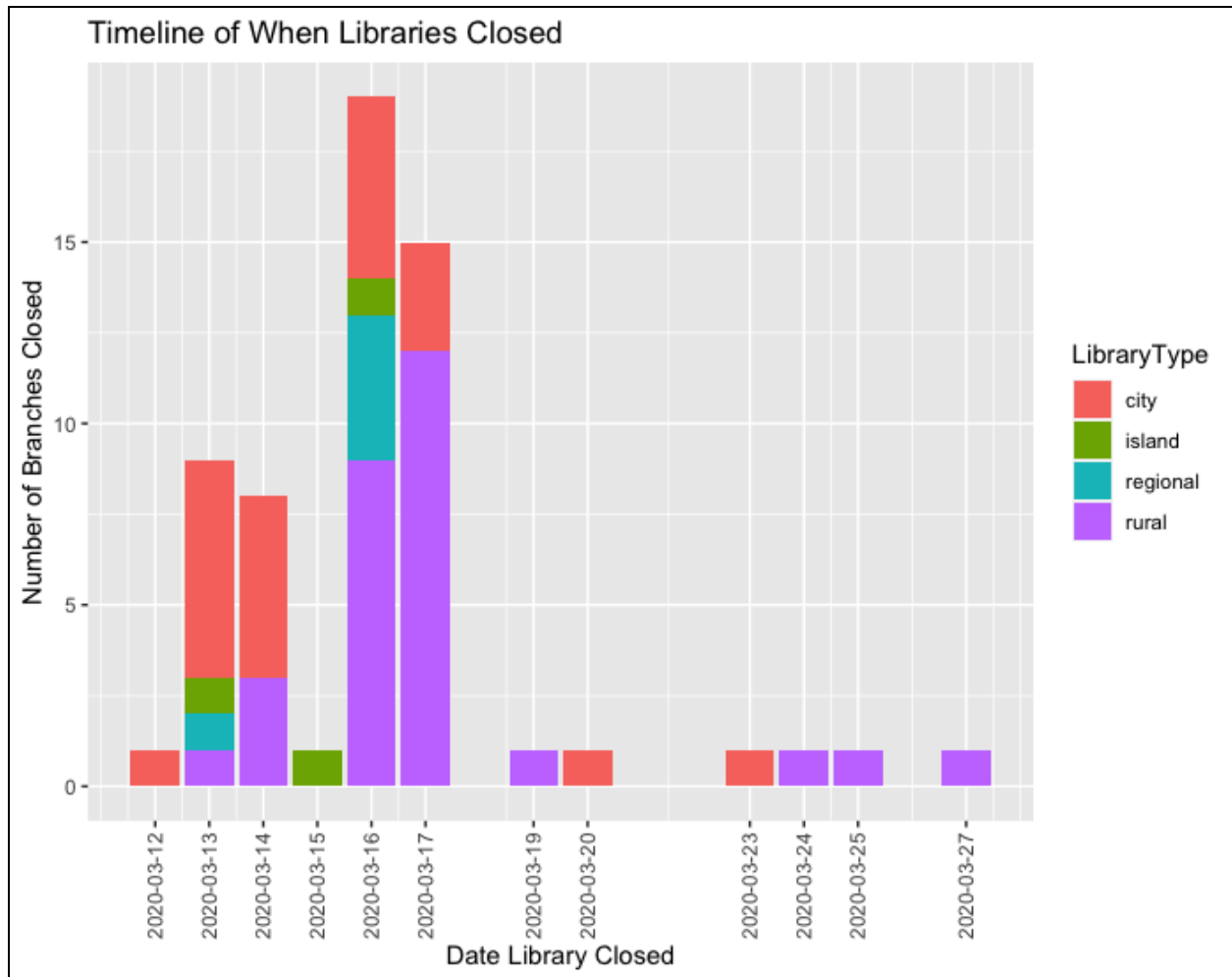
Types of Libraries and When They Closed



```
> ggplot(TL_CitRur, aes(x = FacilityClosed, y = n, color = LibraryType)) +  
+   geom_line() +  
+   geom_point (size=4) +  
+   scale_x_continuous(breaks = unique(TL$FacilityClosed)) +  
+   theme(axis.text.x = element_text(angle = 90, vjust = 0.5)) +  
+   labs(title="Timeline of When City and Rural Libraries Closed" , x = "Date Library Closed", y  
= "Number of Branches Closed")
```

Analysis:

- City libraries closed earlier than rural libraries



```
> ggplot(TL, aes(fill=`LibraryType`, y=n, x=`FacilityClosed`)) +
+   geom_bar(position="stack", stat="identity") +
+   scale_x_continuous(breaks = unique(TL$FacilityClosed)) +
+   theme(axis.text.x = element_text(angle = 90, vjust = 0.5)) +
+   labs(title="Timeline of When Libraries Closed", x = "Date Library Closed", y = "Number of
+   Branches Closed")
```

Analysis:

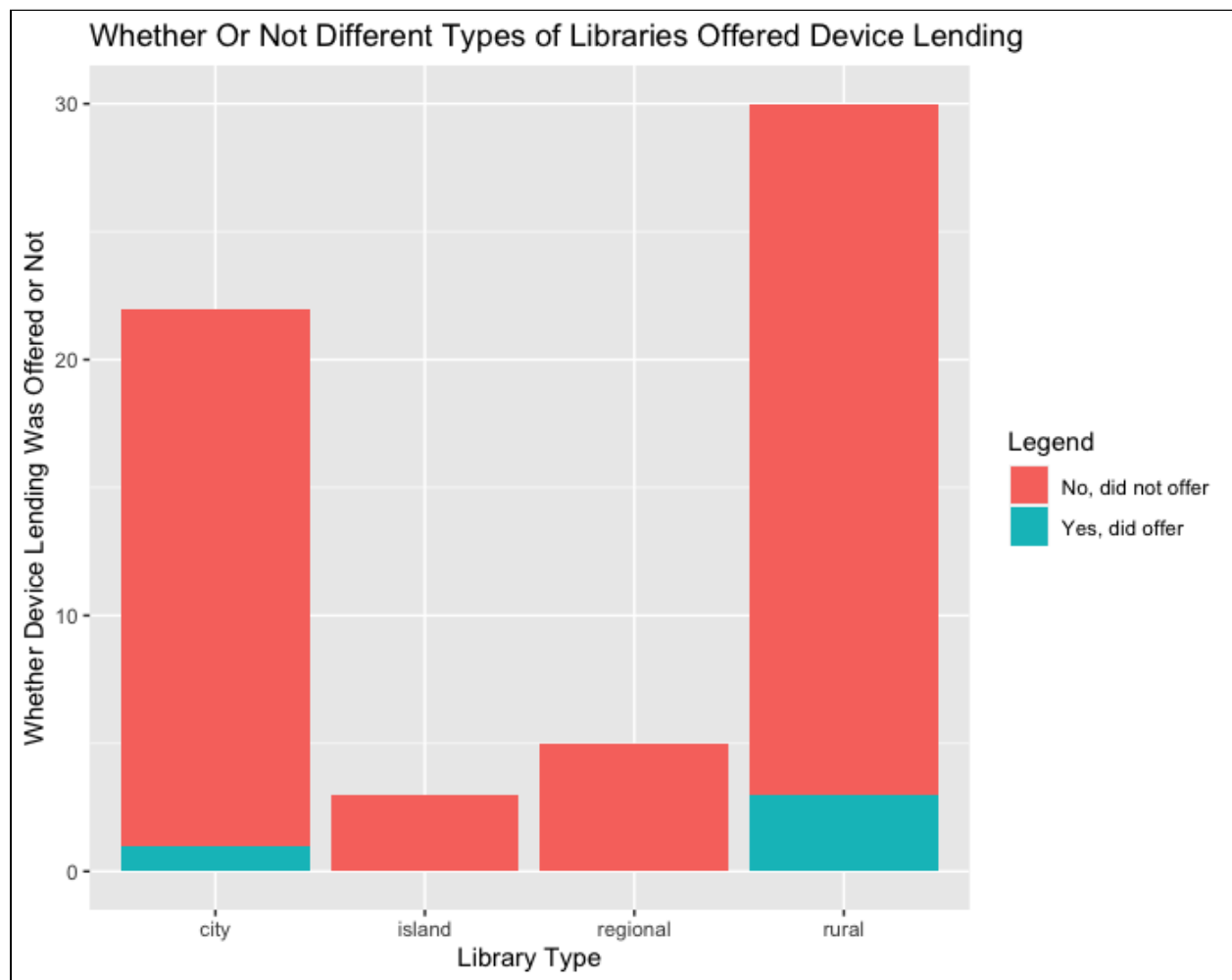
- Most libraries were closed by March 17
- The most popular days to close were March 13-14 and March 16-17. Why?

Types of Libraries and What Services They Offered

Independent Variable	Dependent Variable	Name of Freq Chart
LibraryType	DeviceLendingHome	TyDLH
LibraryType	Hotspot Lending	TyHot
“	ByApptEntry	TyAppt

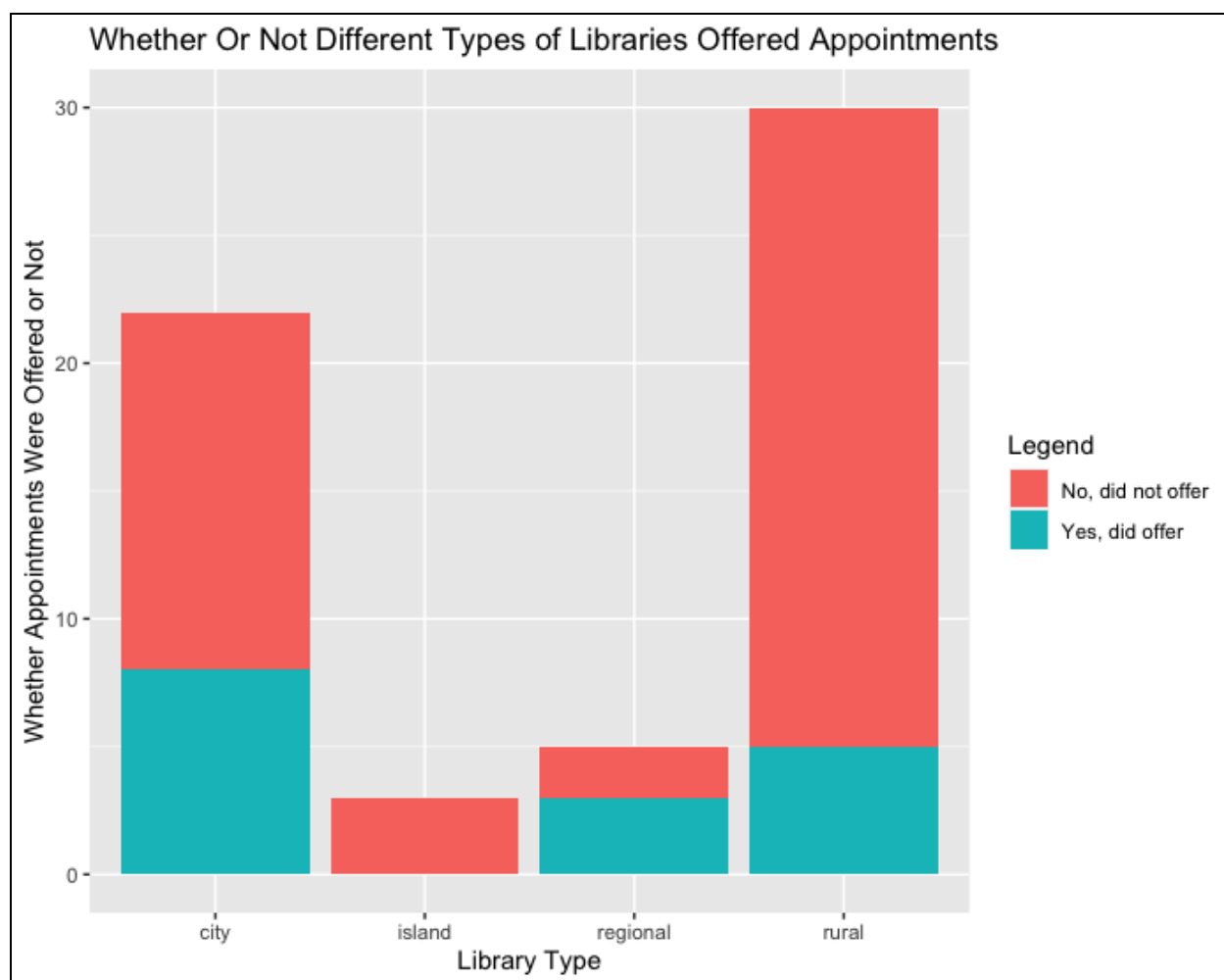
```
> TyDLH <- caps %>%
+   group_by(LibraryType, Curbside) %>%
+   summarise(n = n()) %>%
+   mutate(freq = round(100 * (n / sum(n)),digits=2))

> TyHot <- caps %>%
+   group_by(LibraryType, HotspotLending) %>%
+   summarise(n = n()) %>%
+   mutate(freq = round(100 * (n / sum(n)),digits=2))
```



```
> ggplot(TyDLH, aes(fill=`DeviceLendingHome`, y=n, x=`LibraryType`)) +
+   geom_bar(position="stack", stat="identity") +
+   labs(title="Whether Or Not Different Types of Libraries Offered Device Lending" , x =
"Library Type", y = "Whether Device Lending Was Offered or Not", fill = "Legend") +
+   scale_fill_discrete(name = "Legend", labels = c("No, did not offer", "Yes, did offer"))
```

Analysis:



```
> ggplot(TyAppt, aes(fill=`ByApptEntry`, y=n, x=`LibraryType`)) +
+   geom_bar(position="stack", stat="identity") +
+   labs(title="Whether Or Not Different Types of Libraries Offered Appointments", x =
+ "Library Type", y = "Whether Appointments Were Offered or Not", fill = "Legend") +
+   scale_fill_discrete(name = "Legend", labels = c("No, did not offer", "Yes, did offer"))
```

Analysis:

What Library Services Were Most Popular Among All Libraries

Sorted by most to least popular

Service	Yes, Offered	No, Not Offered
eResources	58	2
Curbside Service	54	6
Book Drop	54	6
Suspend Fines	51	9
Library Card	48	12
Public Wifi	47	13
ePrograms	42	18
Virtual Assistance	42	18
Device on Premises	35	25
Printing	31	29
Hotspot Lending	17	43
By Appointment Entry	16	44
Device Lending	4	56