

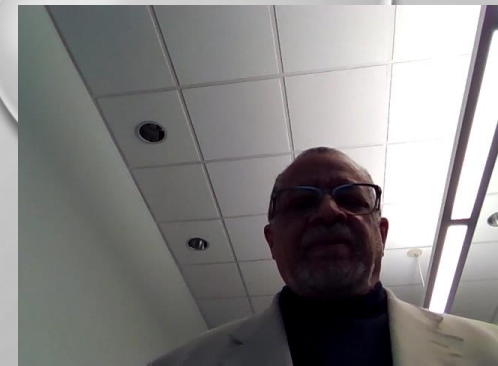
***Journal Usage Patterns at Morehouse School
of Medicine Library 2011 - 2020
(Via Successful Article Retrievals)***

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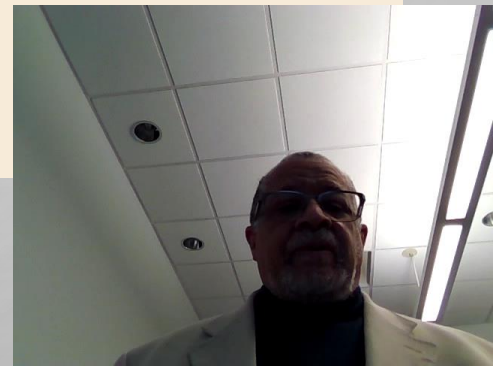
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OBJECTIVE

To determine:

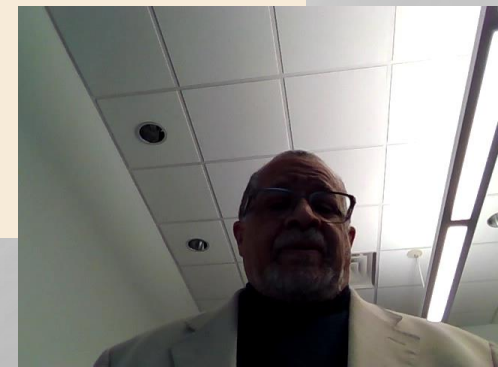
- **usage patterns**
- **implications on journal collection and access models**
- **compare to previous usage and implications**



METHODS

Identified:

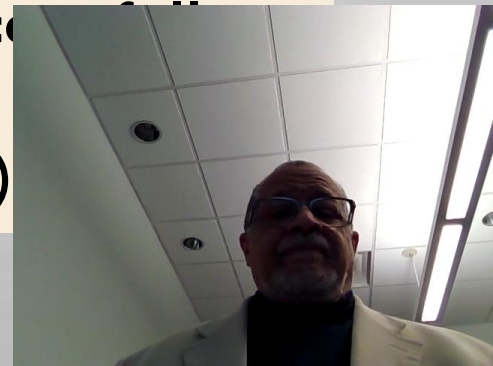
- **20 journals with most articles retrieved for FY 2016 – 2020 using JR-1 Counter information**
- **Patterns of usage stats**
- **Correlation of levels of usage to costs**



Results (Findings): Usage Pattern 1

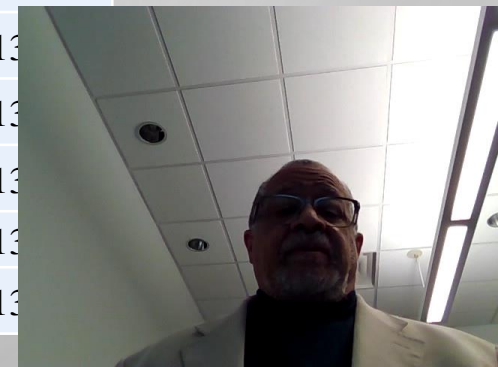
Only 2 journals from 2011-2015 consistently had high volumes of use, as opposed to 20 journals from 2016-2020:

- **FY2011-15: 20 journals with the highest numbers of successfully retrieved articles over past 5 years included 2 titles that were on the list for all 5 years (Journal of Virology and Nature), accounting for 10 of the 20 slots for most used journals, and with Journal of Virology being most used 2 of the 5 years (see Figure 1);**
- **FY2016-20: all 20 journals with the highest numbers of successfully retrieved articles over past 5 years were each on the list for 1 of the 5 years, with Nature being most used 4 of the 5 years (see Figure 1)**



RESULTS (FINDINGS) Usage Patterns 1: Identified 20 journals with most articles retrieved for FY 2016 – 2020

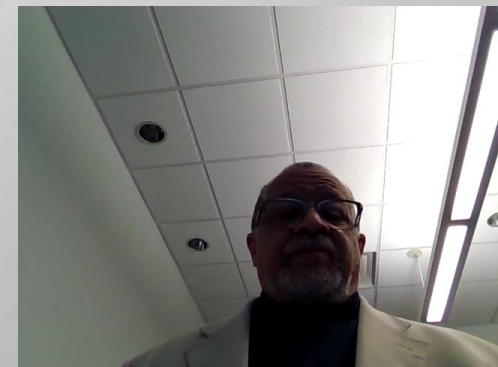
2012	J of Virology	ASM	4481	2018	Nature	Nature	9860
2011	J of Virology	ASM	3480	2020	Nature	Nature	7732
2012	App'd and Env'l Microbio	ASM	2661	2019	Nature	Nature	6780
2014	J of Virology	ASM	2621	2017	Nature	Nature	4950
2013	J of Virology	ASM	2342	2019	Science	AAAS	4146
2015	J of Virology	ASM	2333	2016	J of Virology	ASM	2990
2012	Nature	Nature	2330	2016	Nature	Nature	2431
2014	Nature	Nature	2260	2017	NEJM	NEJM	2250
2015	Nature*	Nature	2230	2016	NEJM	NEJM	2066
2011	App'd and Env'l Microbio*	ASM	1664	2018	NEJM	NEJM	1910
2013	Nature	Nature	1661	2018	Scientific Reports	Nature	1746
2012	J of Bacteriology*	ASM	1561	2016	J of Neuroscience	Soc for Neurosci	1609
2012	Antimicrobial Ag'ts & Chemo*	ASM	1508	2019	NEJM	NEJM	1559
2011	Nature	Nature	1419	2017	Science	AAAS	1511
2012	J of Clinical Microbio	ASM	1335	2020	NEJM	NEJM	1391
2011	J of Bacteriology	ASM	1314	2017	PNAS	NAS	1300
2013	J of Clinical Microbio	ASM	1240	2017	J of Neuroscience	Soc for Neurosci	1300
2011	J of Clinical Microbio	ASM	1199	2020	Science	AAAS	1300
2011	Cell	SciDir	1072	2016	Cell	SciDir	1300
2011	Infection and Immunity	ASM	1042	2016	J of Biological Chemistry	ASBMB	1300



Results (Findings): Usage Pattern 2

The sum of the usage of the top 20 journals for each year trended in different ways for 2011-2015 and 2016 and 2020:

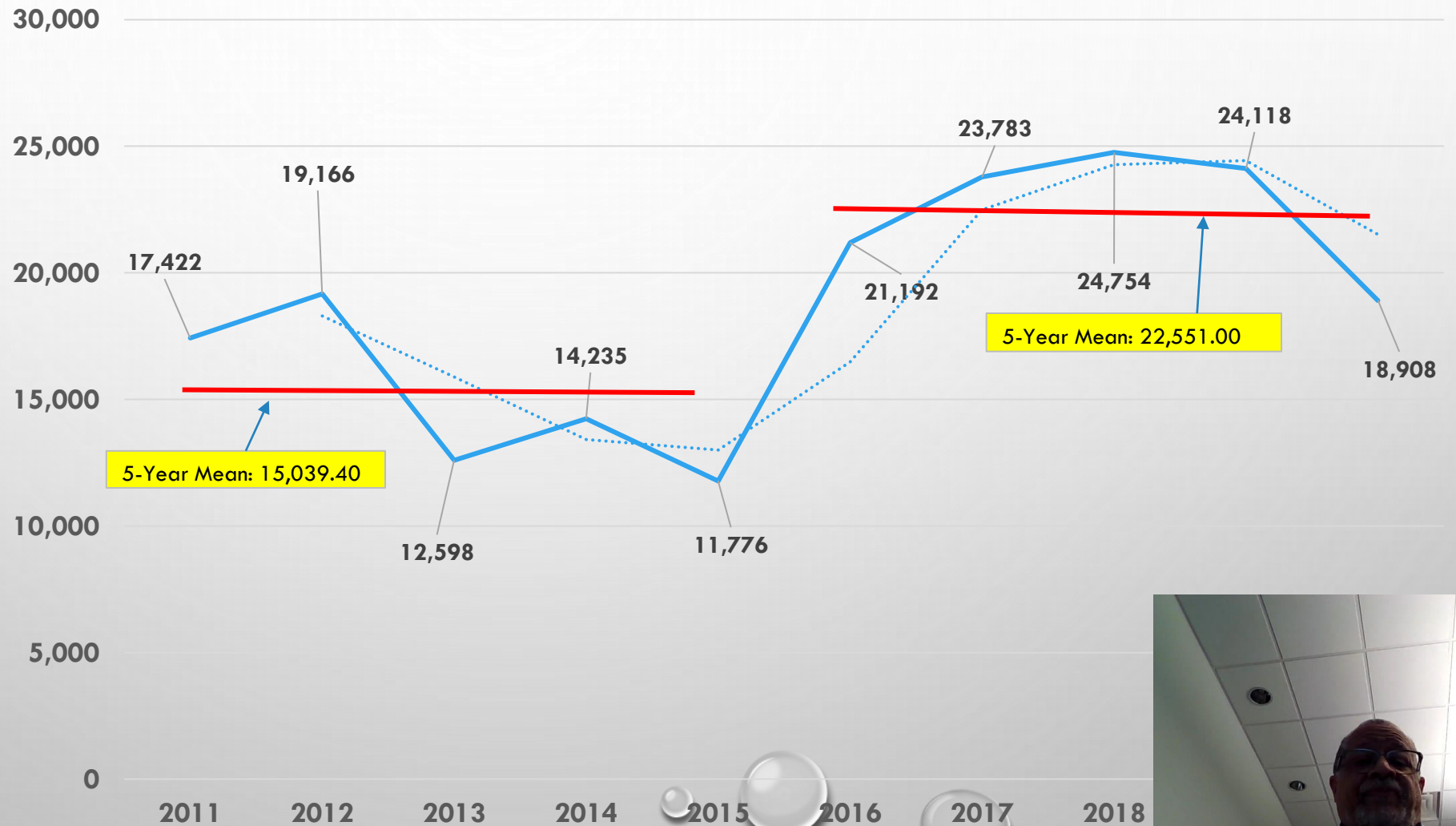
- **FY2011-15 successful use trend was up and down,**
- **FY2016-20, the trend generally increased until 2020 (see Figure 2).**



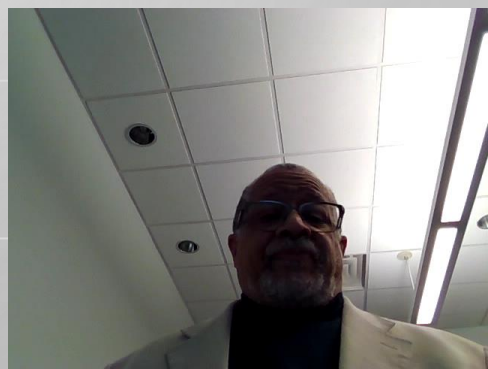
Results (Findings) Usage Pattern 2

Figure 2: Yearly Sum Total Usage of 20 Most Used Journals 2011-2015 and 2016-2020

The dotted trend line shows successful retrievals declined over time for top 20 for FY2011-15, but tended to increase for FY 2016-20 until FY2020.

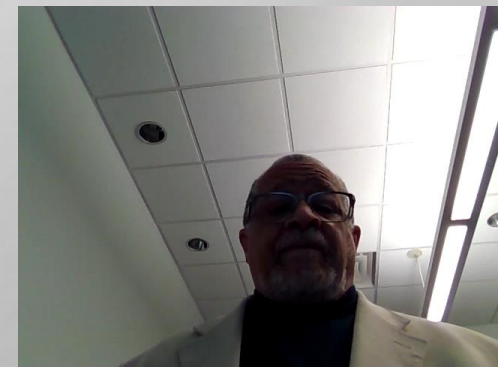


YEAR	TOTAL USAGE	Mean
2011	17,422	15,039.40
2012	19,166	
2013	12,598	
2014	14,235	
2015	11,776	
2016	21,192	22,551.00
2017	23,783	
2018	24,754	
2019	24,118	
2020	18,908	



Results (Findings) Usage Pattern 4

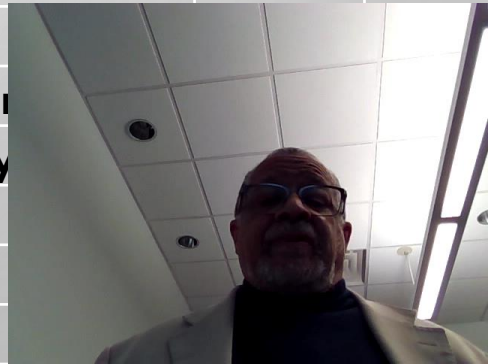
The sums of the usage of the top 20 journals for 2015 and 2020 totaled 11,776 and 18,908, respectively, representing a 60.51% increase (see Figure 4)



RESULTS (FINDINGS): USAGE PATTERN 4

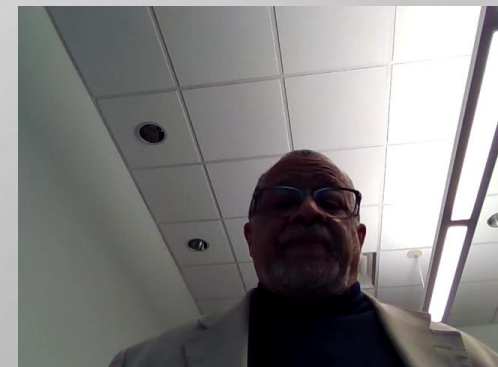
Figure 4: Usage for FY2014-2015 and FY2019-2020 Usage Pattern 4

2015 TITLES	TOTAL	2020 TITLES	TOTAL
Journal of Virology*	2333	Nature	7,732
Nature*	2230	New England Journal of Medicine	1,391
Cell	944	Science	1,339
Journal of Bacteriology*	590	JAMA	1,070
App'd and Envir'l Microbio*	587	Scientific Reports	959
Antimicrobial Agents & Chemotherapy*	436	Cell	895
Epilepsy & Behavior	432	PNAS	762
Oncogene	431	Journal of Biological Chemistry	719
The Lancet	362	Pediatrics	511
Nature Biotechnology	358	The Lancet	467
Biochem & Biophys Research Comm	348	JAMA Internal Medicine	439
Neuron	341	Journal of Neuroscience	406
Kidney International	316	American Journal of Public Health	398
Brain Research	306	Nature Medicine	378
Infection and Immunity	301	Epilepsy & Behavior	
Nature Medicine	298	Biochemical and Biophysical Research Commun	
Neuroscience	298	Journal of the American Society of Nephrology	
Cardiovascular Research	292	Cancer Research	
Scientific Reports	291	Oncogene	
Social Science & Medicine	282	Journal of Virology	

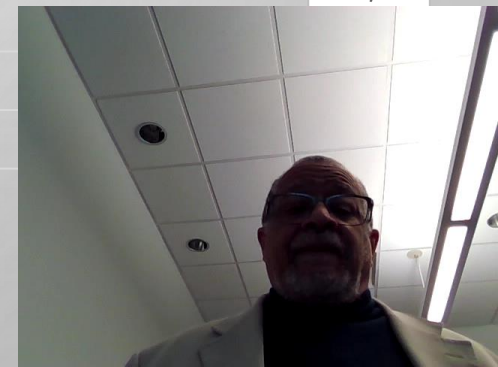
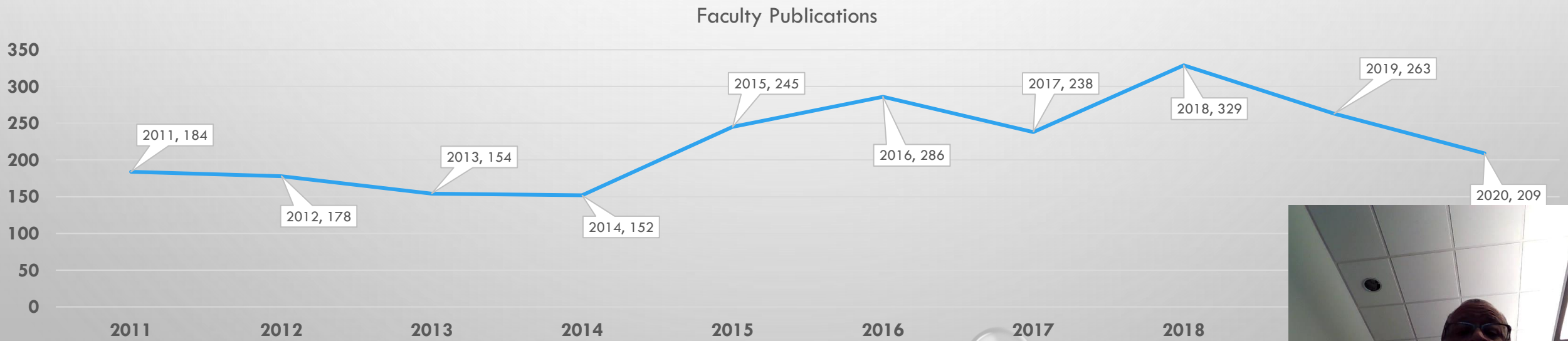
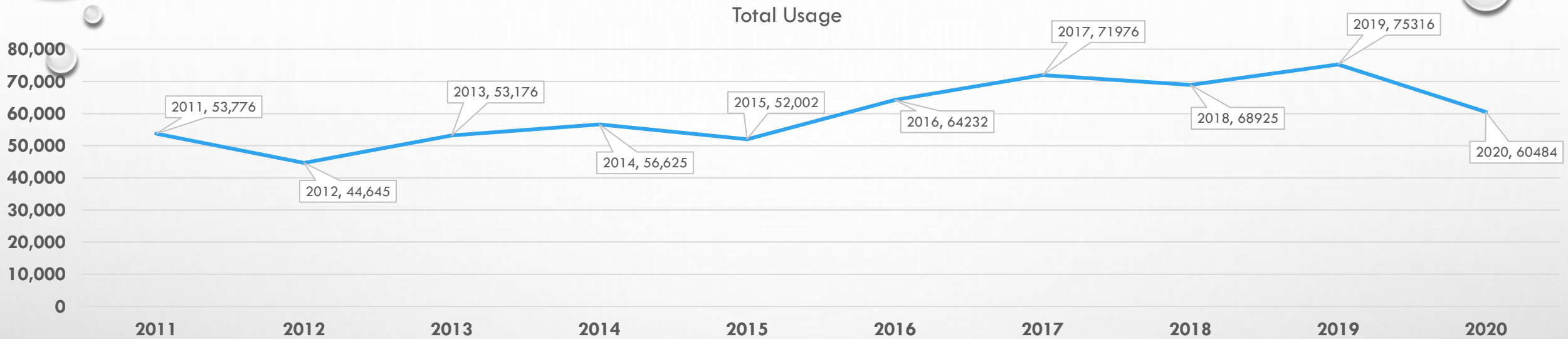


Results (Findings) Usage Pattern 6

- **From FY2010-2011 to FY2019-2020 the fluctuating pattern of faculty publications appear to loosely follow the pattern of journal usage as reflected in the JR1 reports.**
- **Correlation of publication to use was moderate at .666 and significant at .036**

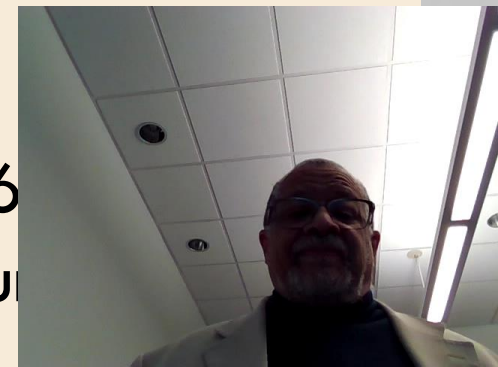


Results (Findings) Usage Pattern 6: Faculty Publication and Usage Levels



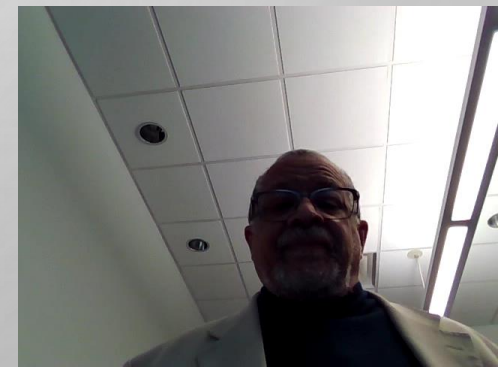
Conclusions

- Data shows successful retrievals declined over time for top 20 for FY2011-15, but tended to increase for FY 2016-20 until FY2020.
- FY2011-2015 averaged 52,044 successful retrievals per year, while FY2016-2020 averaged 68,549 successful retrievals per year.
- When looking for a relationship between journal cost and usage, only moderate correlations of .406, .638, and .407 were found for FY2016, FY2018, and FY2020, respectively. However, none of the correlations were statistically significant ($p = .177, .065, \text{ and } .133$, respectively).
- A significant ($p = .036$) and devilishly moderate correlation ($r = .6$) between faculty publication levels and journal use levels was found.



Implications & Conclusions - 2020

- *Users tended to consistently be successful with certain journals.*
- **Successful retrievals increased substantially from 2016-2020 over 2011-2015.**
- **Successful retrievals declined for 2020 and coincided with the beginning of the COVID-19 pandemic.**
- **Clinical titles appeared to be more in use during 2016-2020 than in 2011-2015.**



Next Steps

- **INTERVIEWS TO DETERMINE EMERGING AREAS OF INTEREST AMONG FACULTY AND RESEARCHERS;**
- **A SHORT SURVEY IS TO DETERMINE PREFERRED RESOURCES;**
- **FOCUS GROUP SESSIONS TO SOLICIT ADDITIONAL FEEDBACK;**
- **COMPARISONS OF LEVELS OF USAGE AND COSTS USING CORRELATIONS AND ANOVA;**
- **CORRELATIONS (PEARSON'S R) TO FURTHER ASSESS COI.**

