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From "Butts in the Pews" to Views: Calculating Online Worship Attendance

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### Abstract

From "Butts in the Pews" to Views: Calculating Online Worship Attendance By Rev. Diana Hodges-Batzka

Average worship attendance (AWA) is a defining metric for many churches, denominations, and even researchers in helping understand congregational organization and health. Yet, it means different things depending upon how it is used to measure desired outcomes. With the rapid expansion of online worship due to the public health restrictions implemented during the COVID-19 pandemic, churches must develop a new method for calculating AWA. The questions of what counts as worship and who counts in worship reveal some assumptions of modern-era ecclesiology already being challenged by previous models of virtual church. In turn, it is proposed that churches are living into a new model of virtual church, a hybrid church online model. Because of this new model of hybrid church, AWA must be redefined incorporating online analytics. Using a simple Outcome Thinking Systems Model, traditional counting and calculating of AWA is evaluated considering the role it plays in measuring certain outcomes and then a comparable online worship metric is proposed. An infographic is included to help churches calculate their average worship attendance.

From "Butts in the Pews" to Views: Calculating Online Worship Attendance

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## I. INTRODUCTION

Stumped. We stared at each other via a Zoom screen - two pastors with multiple graduate and post-graduate degrees, over forty years of experience in congregational ministry - and we had no idea how to answer one simple question on a loan application for the church: "What is your current average weekly worship attendance?"

We had no idea. After all, it was Fall 2020 and we were in the thralls of the global COVID-19 pandemic. We were worshipping on-campus on Sunday mornings with a reservation system, online via live stream on Facebook Live and our website, and through conference call. People also accessed service on YouTube and Facebook to worship on demand and we were mailing DVDs every few weeks.

How many people were worshipping with us? Shoulder shrug. Whom do we count? A person who worships in person on campus? Someone who comments on the Facebook video? Do we count the number of views on Facebook or YouTube? The number of DVDs we mail to those who can't easily access the internet? Shoulder shrug. What do we count? Which Facebook, YouTube or website analytics? The number of ten-second views? One-minute views? The number of live views? The number who watch the entire video? Where do we draw the line? Shoulder shrug. Who counts? Who counts as part of our congregation? Those who are quite content to watch whichever preacher is on TV is on Sunday mornings, but faithfully give and consider us their church? The children who dance while the music plays but then go and play while Mom participates in worship on her iPad? Shoulder shrug.

"What is your average worship attendance?"

This seemingly simple question has been asked for years by pastors, church leaders, researchers, and everyone else who uses this metric to gain greater insight into the state and

status of a congregation. In February 2020, we knew the answer - 183. We had been tracking this number for months as a sign of whether we were meeting our goals as a congregation to fulfill our mission by increasing our engagement. We knew that between two worship services on Sunday morning, we had an average of 183 people who worshipped with us. And this number had increased since we started our ministry with Florence Christian Church in Florence, Kentucky.<sup>1</sup> It meant people were more engaged with our church. It meant new people were joining us. It meant that people were finding worship meaningful in their lives. It meant that our congregation did not need to start a new service. It meant that we had the right-sized staff with two full-time pastors. This one little number meant a lot of things.

Yet, with the onset of COVID-19 and the changes it brought to the ways we worship, we lost our simple metric of average worship attendance. What's more, the problem is not going to disappear when the pandemic ends. Even after we return to regular on-campus worship services, Florence Christian Church will continue to stream worship online. We anticipate that many people will continue to worship online as an alternative to on-campus worship. How will we count them? Why does it even matter? This project re-envisions the meaning and nature of average worship attendance (AWA) in a way that is adequate to the hybrid reality of a post-pandemic church using an Outcome Thinking Systems Model. This new framework allows for online analytics to be added to on-campus worship attendance calculations, creating a metric which can help churches track their desired outcomes. At the same time, re-envisioning worship attendance reveals the emergence of a new, hybrid ecclesiological vision brought about by new forms of church online.

<sup>&</sup>lt;sup>1</sup> This new clergy leadership included Rev. Dr. Susan Ward Diamond as Senior Minister and me as Associate Minister. We had worked together previously and were hired simultaneously. Our start date was January 1, 2015.

## II. THE RISE OF COUNTING ATTENDANCE

If someone walks into the Chapel at Florence Christian Church, they take a step back in time. This small sacred space has been designed intentionally to look like the old sanctuary of the "little white church," the term used to describe the church's historic building built in 1835 and torn down in 1965, due to a badly damaged foundation, and replaced with a new contemporary sanctuary space, which is still in use.<sup>2</sup> As one surveys the old pulpit, tarnished



Figure I – Board found in Florence Christian Chapel

silver communion plates, and chairs in rows to mimic pews, one's eye might be drawn to a board with removable letters and numbers that say, "Attendance Last Sunday:286." [See Figure 1]

As I have, one may still be able to find similar signs in many older worship spaces, often near the front, designed to let people know the church's worship attendance for the previous or current week, even if they are not in use today. After all, as a report on church attendance from 1936 argues, it is the duty of all members to be informed about church attendance figures.<sup>3</sup> The prevalence of such signs demonstrates that worship attendance is not a new concern to churches of the twenty-first century.

In two of the more familiar stories in the New Testament, we can see that early Christians counted people too. One such story is of Jesus' Feeding of the Multitudes. In describing the scene, each of the four gospels takes great pains to state that there were five thousand men

<sup>&</sup>lt;sup>2</sup> Burl Russell, "Recent Recollections: Modern History of the Florence Christian Church," in *History of the Florence Christian Church 1831-1981* (Florence Christian Church, 1981). The sanctuary may seem dated today, but it was considered contemporary for the time.

<sup>&</sup>lt;sup>3</sup> Roger W. Babson, *How to Increase Church Attendance* (New York: Fleming H. Revell Company, 1936), 68.

present in addition to the women and children. (Matthew 14:21, Mark 6:44, Luke 9:14, John 6:10). It does not seem unimportant or coincidental that the miracle which directly affected such a large number of people is the only one found in all the Gospels.<sup>4</sup>

The importance of numbers to early Jesus followers continues in the story of Pentecost found in Acts. "Those who accepted Peter's message were baptized. God brought about three thousand people into the community on that day." (Acts 2:41 CEB). It mattered to the early Christians that on the day of Pentecost that there were three thousand new believers. The increase of this number to five thousand people is reported in Acts 4:4. The recording of this number of people who are a part of the new Jesus movement matters to the early Christians as a sign of the actions of God's Spirit. It is a signal that the early Christians are fulfilling the mission of the Church Universal, broadly found in Matthew 28 when Jesus commands his disciples to "Go therefore and make disciples of all nations . . ." (Matthew 28:19 NRSV). How is one supposed to do this without counting who is and who is not a disciple?

Concerns over church attendance were widely apparent in the early twentieth century. In 1929, the General Council of the Congregational and Christian Churches, a Protestant denomination that went onto become part of the United Church of Christ, created a "Commission on Church Attendance" to explore trends in church attendance using statistical analysis.<sup>5</sup> In its analysis, it argued that there had been a trend of decline in church attendance since 1600; its immediate concern was a decline in church attendance since 1880, one that resulted in a decline of five percent per year during the early 1930s.<sup>6</sup> In their summary of their work, the Commission

<sup>&</sup>lt;sup>4</sup> Of course, there is also the story of Jesus feeding the four thousand found in Matthew 15:32-39 and Mark 8:1-9. Perhaps it is no coincidence that in the version of the story with which church people tend to be less familiar, Jesus allegedly fed fewer people.

<sup>&</sup>lt;sup>5</sup> Babson, *How to Increase Church Attendance*, 3–4.

<sup>&</sup>lt;sup>6</sup> Babson, How to Increase Church Attendance, 149–50.

suggests possible causes of the decline, which ranged from overly complicated processes for joining a church to outdated church buildings to too frequent requests for money.<sup>7</sup>

The work of the "Commission on Church Attendance" illustrates the continued connection between the church's purpose and its size. It summarizes this connection by noting that, "the community would be far better off, *so long as more people came to church for some purpose every Sunday*."<sup>8</sup> The Commission indicated a connection between the size of a congregation and its spiritual health. More accurately, the size of a congregation seemed to be a gage used to measure how well a congregation was achieving what many consider to be the primary call of the gospel: making disciples. On a basic level, making more disciples means that the Church Universal is fulfilling the mission to which Jesus called us. Thus, counting how many people are worshipping God in church each Sunday has, for centuries, offered a seemingly straightforward, easily calculable figure to measure if a congregation is fulfilling that mission.

Anecdotally, many—myself included—have begun to push back against this insistence on counting worship attendance, especially as the only or primary sign of growth in a community of faith. Ziegler quotes theologian Karl Barth as he "cautions the church against the numbers game when he [Barth] says, 'The true growth which is the secret of the upbuilding of the community is not extensive but intensive; its vertical growth in height and depth . . . We cannot, therefore, strive for vertical renewal merely to produce greater horizontal extension to a wider audience.""<sup>9</sup> Barth points to one of the major tensions around measuring worship attendance:

<sup>&</sup>lt;sup>7</sup> Babson, *How to Increase Church Attendance*, 7–23.

<sup>&</sup>lt;sup>8</sup> Babson, *How to Increase Church Attendance*, 16.

<sup>&</sup>lt;sup>9</sup> Earl K Ziegler, "Consider This Church, How It Grows," Brethren Life and Thought 28, no. 4 (1983): 241.

what happens when the figure becomes an end, instead of a metric which points to something greater than itself?

### III. DEFINING AVERAGE WORSHIP ATTENDANCE TODAY

The question, "How big is your church?" is a common one, frequently traded among clergy and churchgoers alike. I've even been asked this question by non-church goers who are trying to place my congregation in relationship to any experience of church that they have ever had. *How big is your church*? This seemingly basic question can be answered a lot of different ways. Some will tell you about "total membership" meaning all those who are formally registered as members.<sup>10</sup> This figure can provide a misleading picture, though, because it can include people who have not been connected to the church in decades. Others will cite "active members," who are usually those who engage with the congregation in some way: they show up at worship, someone knows their name, they regularly give money, and so on. The most widely accepted response to the question of church size is average worship attendance (AWA) – broadly defined as the number of people who attend worship services over the course of a given weekend or week.<sup>11</sup>

There is a lot of information wrapped up in this one little number. Some implicitly correlate the number with how important or special a church is, associating a congregation's size with its relative influence. For others, it means that a congregation is fulfilling its mission of "making disciples" and thus fulfilling the mission of the church. When most people ask about

<sup>&</sup>lt;sup>10</sup> I am speaking in broad generalities, especially about Protestant denominations. Different denominations may have technical definitions for these terms, but as a congregational denomination, the Christian Church (Disciples of Christ) to my knowledge does not have requirements, simply practices.

<sup>&</sup>lt;sup>11</sup> This is my working definition based upon my own experience and the language common in my denomination. Other denominations use different language such as Average Sunday Attendance. I was unable to locate any research that specifically defines the term. In fact, I think that this paper illustrates that while people assume they know what it means that people use different criteria interchangeably.

congregation size, however, they are not trying to judge a community's superiority. Instead, they are trying to gain very important information about the state of a congregation. Yet, even researchers struggle with the vagaries of this complex little number. Maurizio Rossi and Ettore Scappini, researchers with the University of Bologna, dedicate an entire research paper to the challenges of measuring worship attendance, the different ways that it is measured and interpreting what it means.<sup>12</sup> How then can the average congregation and, more specifically, the congregational leader or clergy person, be equipped to approach this complex and confounding figure? Is it irrelevant as Barth argues? Is it no longer useful? Should we stop tracking it?

# IV. AVERAGE WORSHIP ATTENDANCE PRE-GREAT DISRUPTION

At Florence Christian Church, questions about the meaning and nature of church attendance totals did not begin in March 2021. Rather, it was a question with which our congregation had been grappling for years. The congregation had a recorded AWA of 139 in 2014, the year prior to the arrival of new clergy leadership.<sup>13</sup> In 2015, it increased to 166. It continued to increase, until in February 2020, when it was 183.

<sup>&</sup>lt;sup>12</sup> Maurizio Rossi and Ettore Scappini, "Church Attendance, Problems of Measurement, and Interpreting Indicators: A Study of Religious Practice in the United States, 1975 - 2010," *Journal for the Scientific Study of Religion* 53, no. 2 (June 2014): 249–67.

<sup>&</sup>lt;sup>13</sup> This new clergy leadership included Rev. Dr. Susan Ward Diamond as Senior Minister and me as Associate Minister. We had worked together previously and were hired simultaneously. Our start date was January 1, 2015.



Figure 2 - Florence Christian Church Average Worship Attendance

Prior to March 2020, our process for calculating AWA was a straightforward one. Our sound technician would count the number of people present in our sanctuary during each worship service, usually at the time of the opening prayer because people were standing still, and children were present (before leaving for children's programming after a children's blessing).<sup>14</sup> The technician would record the weekly totals on a sheet of paper.<sup>15</sup> At the end of the year, the weekly figures were added and averaged over the number of services held that year (Sundays plus major special services such as Christmas Eve). This method of calculation provided our AWA. We viewed this figure as a means to measure whether we were achieving one of our

<sup>&</sup>lt;sup>14</sup> In our order of worship, we have a set of opening songs, followed by the opening prayer and recitation of the Lord's Prayer, and then a time called the "Children's Blessing" prior to our children being invited to go to age-appropriate worship activities. Some would go and some would remain.

<sup>&</sup>lt;sup>15</sup> Of course, such calculations would miss those who arrived after this prayer (usually three to four people). However, if something needed the technician's attention, this counting would not happen until later in the service, such as during the sermon, when twenty to twenty-five children had left the sanctuary, resulting in an inaccurate count.

stated goals. In 2020, our desired goal for the year was to "Increase Engagement of our Worshipping Community with Florence Christian Church ministries by 15 percent," which included a 15 percent increase in average worship attendance.<sup>16</sup> Basically, we wanted our AWA to increase from 182 to 209. We used AWA as a way to measure engagement with the church.

Beginning in late 2018, pastoral leadership began to discuss the possibility of live streaming worship, or at least the sermon, in 2022. Yet, we had discussed neither whether nor how we would include in our AWA those who participated online. We did not know what role online worship would play in helping us achieve our desired outcome of increased engagement. Was online participation part of our average worship attendance or a separate means of engagement entirely? Then came COVID-19.

# V. AVERAGE WORSHIP ATTENDANCE AND COVID-ERA WORSHIP

On March 6, 2020, Kentucky Governor Andy Beshear declared a state of emergency with

the state's first confirmed case of COVID-19. Sunday, March 15, 2020 was the first time Florence Christian live streamed our Sunday worship service, canceling on-campus ones.<sup>17</sup> We connected a phone to a tripod, placed it in the middle of the chancel, turned the pulpit towards the camera and live streamed our Sunday worship service from our



Figure 3 - Picture of Early Live Streaming Set Up at Florence Christian Church

sanctuary to Facebook Live. After we concluded worship, our senior minister logged onto

<sup>&</sup>lt;sup>16</sup> "2020 GPS Florence Christian Church (Disciples of Christ)," February 19, 2020.

<sup>&</sup>lt;sup>17</sup> During my ministry with Florence Christian, we have canceled worship services entirely twice due to inclement weather. Once was an Ash Wednesday service in 2015 and the other was Sunday morning in 2019. Both times we did offer a self-led worship experience through our website. You can see the service from January 20, 2019 at https://florencechristian.org/virtual-worship/

Facebook to learn how many people joined us for worship. To our amazement, we had received over one thousand views! We could not believe that so many people had joined us for worship. We did a happy dance in the front of that empty sanctuary, grateful that amid the first days of a global pandemic we had worshipped.

Yet, as weeks of live streamed worship continued, we began to look at the analytics and insights available from Facebook and YouTube. It was then that we discovered that a "view" did not indicate that someone had joined us for worship in what we would consider a meaningful way or even watched the video at all. A view could mean that someone had simply scrolled past the video in their feed as it auto played in silence. It could also mean that a church ministry partner (church member) had set up the worship service on their home TV or computer, gathered their family together, sang along, laughed at jokes in the sermon, had taken communion with us, and was present for every moment unfolding in the sanctuary. Clearly, views did not correlate with attendance.

As the spaces, methods, and nature of worship attendance continue to change dramatically in ways that will invariably outlast the COVID-19 pandemic itself, how then do we count worship attendance? This question is not unique to Florence Christian Church. In fact, a simple online search will result in many blog posts, most in the Spring of 2020, with advice and guidance about how to count online church attendance.<sup>18</sup> Clearly, there is a need to re-envision what AWA means and how we could calculate it.

<sup>&</sup>lt;sup>18</sup> The Editors, "Q&A: How Do We Measure Online Church Attendance?," Church Law & Tax, accessed January 13, 2021, https://www.churchlawandtax.com/web/2020/april/qa-how-do-we-measure-online-church-attendance.html; Diana Waks, "How Church Leaders Are Measuring Online Church Attendance," accessed January 16, 2021, https://www.vanderbloemen.com/blog/how-churches-measure-online-attendance; "How to Track Online Church Attendance," accessed January 16, 2021, https://www.breezechms.com/blog/how-to-track-online-church-attendance; "Some Awkward Questions About How to Measure Online Church Attendance (+ 5 Growth Strategies) - CareyNieuwhof.Com," accessed January 16, 2021, https://careynieuwhof.com/some-awkward-questions-about-

Many congregations, including my own, quickly tried to discern which, if any, of the analytics available to us were useful. Yet the magnitude of the shift required of us meant that we did not have much time or energy to devote to the complicated task of parsing digital analytics, so we simply continued to worship. During the first days of online worship there was little energy to address questions about the nature of worship and, by extension, ecclesiology which was the outcome of the sudden shift in worship practices, much less, how to measure "worship attendance." The focus was the practicalities of online worship.

The first question that congregations had to address was *how* they would worship. In turn, this dictated the possible ways that they would be able to count worship attendees to calculate AWA. It depended on the *platform* they were using to worship online as well as whether the experience was synchronous or asynchronous. They also needed to account for any on-campus, in-person, drive-in, or other creative means of worship that happened off-line.

For congregations who used the model of online worship through a synchronous video conferencing platform such as Zoom or Google Meet for a simultaneous group worship experience, counting AWA might seem less complicated than it would be for those using a live streaming and/or an asynchronous experience. For example, in a video conference the number of participants may seem to be easily visible on the screen. Yet even that is not so clear-cut. What about those who share the same screen, such as some couples or families? Are they one unit or multiple units? Also, what about those who both call in and have a video screen? They are technically calculated as two participants.

how-to-measure-online-church-attendance-5-growth-strategies/; "Large Church Trends: How to Measure Online Attendance?," *Large Church Trends* (blog), May 4, 2020, https://largechurchtrends.blogspot.com/2020/05/how-to-measure-online-attendance.html.

Perhaps these minor discrepancies can either be manually adjusted or ignored as expected variables. After all, counting people in person raises similar questions. If you have two worship services, do you count the worship leaders who attended both twice? What about the people who arrive after the count or leave before it? These minor variables are to be expected. After all, no counting of this type – whether digital or in-person - is one-hundred percent accurate.

For congregations who use the model of either live streaming or premiering pre-produced videos, depending on the platform, there are a multitude of analytics available. However, sorting through and understanding these analytics is complicated and hard. For example, Florence Christian Church live streamed worship on January 10, 2021 to Facebook Live and YouTube. On each of those video posts we had: (according to Facebook) - 54 Peak Live views, 130 1-Minute views, a total of 3,263 minutes of viewing, 602 10-second views, 1,319 3-second views, and an estimated reach of 2.1K.

		Vic	deo Details						
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loronco					⊙ Pea	ak Live Viewers		54	
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joining				9	📽 3-S	econd Video Vie	ews	1,319	
Florence Christian Church: "I am th	ne Light"				Ave	erage Video Wat	tch Time	1:05	
Pastor Susan Diamond	-				🗄 Aud	lience Retentior	ı		
:11:45 · Was Live: 01/10/2021 · Owned · Appears On	ice · View Permali	nk 🖉 · Copy	Video ID 🕼	1	<b>LL</b> Aud	lience and Enga	agement		
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Florence Christian Church "I am the Light" Pastor Susan Dia	<ul> <li>01/10/2021</li> <li>10:22 AM</li> </ul>	2.1K	1.3K 100%	602 100%		921	202	1:05 / 01:11:45	

Figure 4 - Screenshot of Facebook Analytics for Worship Service on 1/10/2021

According to YouTube we had– 17 views, 4.3 hours of watch time, a peak of 4 concurrent views, and 22 unique viewers.

= 🕒 Studio		Q Search across your channel		
← Channel analytics	Video analytics	Audience		ADVANCED MODE Jan 10, 2021 – Now Since published
Your video	This video has	gotten 17 views since it	Experimental Send us feedback	Realtime ● Updating live 4 Views - Last 48 hours ▼
<ul><li>Details</li><li>Analytics</li></ul>	views 17	Watch time (hours)	Subscribers	-48h Now
Editor			18	Top traffic sources         Views           Direct or unknown         25.0%           Channel pages         25.0%           Suggested videos         25.0%
🔤 Subtitles	0 2 4	6 8 10	6 12 14 days 0	External         25.0%           Browse features         0%           SEE MORE         10%
	SEE MORE	Engagement with your content		
- California	How you	ur audience engaged with your last live	e stream	

Figure 5 - Screenshot of YouTube Analytics of Worship Service on 1/10/21

Who worshiped with us? How do any of these analytics fit the same functions or provide us the same information as our AWA before we began live streaming? The challenge of this seems to be summarized by advice from the Unitarian Universalist Association on how congregations who desire certification in 2021 should count "virtual participation."<sup>19</sup> They tell their members to ignore previous years' instructions and instead provide, "Your best estimate for the number of people (of all ages) who are engaging with your congregation on a weekly basis including its virtual/online activities."<sup>20</sup> This instruction seems to get at the heart of their purpose, and perhaps much of the purpose, of measuring AWA. Prior to the necessity of online

 <sup>&</sup>lt;sup>19</sup> "What Is Average Weekly Attendance? | UUA.Org," accessed January 13, 2021, https://www.uua.org/data/faq/certifyingmembership/average-weekly-attendance.
 <sup>20</sup> "What Is Average Weekly Attendance?"

worship as the primary way of worship, AWA was the figure used to indicate engagement. Now, churches are being forced to evaluate whether engagement and worship are synonymous.

The question of engagement further complicates arguments about AWA. What does engagement look like? When we calculate our AWA, we are not including other types of engagement with our congregation. We are counting those who worship. Is worship the best (or only) way to measure engagement? When we are measuring AWA, what exactly are we measuring? Does AWA still have a place in the age of post-COVID worship?

#### VI. ONLINE WORSHIP AND ECCLESIOLOGY

Counting and calculating AWA involves a series of decisions about who counts in worship and what counts as worship. These seemingly simple questions point to more complex ecclesiological ones. In turn, they reveal the tension that the advent of online worship and virtual churches has introduced (or revealed) with respect to understanding the nature of worship and the church.

Who counts in AWA depends upon how one defines a church. In his work *SimChurch*, which explores ecclesiology in the virtual world and early manifestations of "church" online, Douglas Estes draws attention to the term *ekklesia*, the Greek word translated as "church" in the New Testament. *Ekklesia* can indicate an assembly, a townhall-style meeting, or gathering.<sup>21</sup> There is an implied physicality and an intentionality in the term. The word "church" can also have a variety of meanings. As Tim Hutchings reminds us, "In Christian discourse, the word 'church' can be used to refer to a building designated for Christian worship, the community that worships there, the denomination that that community belongs to or the sum total of all

<sup>&</sup>lt;sup>21</sup> Douglas Estes, *SimChurch: Being the Church in the Virtual World* (Grand Rapids, MI: Zondervan, 2009), 36.

Christians who ever lived."<sup>22</sup> Is the church only those who worship? Or does it also include those who engage with the life of the church community in other ways? If we use the definition of church as a gathering or assembly of Christians as our basis for who counts in worship, then we must consider the extent to which those who are worshipping online are really "present" and included in the act of ecclesial gathering.

At the same time, being a formal member of a church is not the same thing as attending worship. Indeed, this is the very reason why we rely on worship attendance, and not merely membership totals, as an indicator of a congregation's vitality. People who are members of the church may attend worship; conversely people who do not formally belong to the church may also attend worship. As scholars such as Robert Putnam have argued, this decline in formal church membership is part of the broader decline of social capital and connectedness among Americans in the later part of the twentieth century.<sup>23</sup> Because Americans – even those who regularly participate in worship - are now less apt to formally join congregational, the issue of "formal" church membership becomes a less viable indicator of congregational vitality.<sup>24</sup> As such, the question of who is worshiping with a congregation becomes a more appropriate indicator of congregational vitality.

Centering worship as the criteria for church participation, and, by extension, of church vitality, prompts questions about the meaning of *presence* during worship, what worship is and how worship is central to a congregation's life. Theologian Simon Chan proposes an ecclesiology which centers the role of worship in the church. Chan describes the importance of

<sup>&</sup>lt;sup>22</sup> Tim Hutchings, *Creating Church Online: Ritual, Community, and New Media* (New York, NY: Routledge, 2017), 2.

<sup>&</sup>lt;sup>23</sup> Robert Putnam, *Bowling Alone: The Collapse and Revival of American Community* (New York: Simon & Schuster, 2000), 65–79.

<sup>&</sup>lt;sup>24</sup> Putnam, Bowling Alone: The Collapse and Revival of American Community, 69–72.

liturgical rhythms and, drawing on Don Saliers' understanding of true worship, argues that active participation is vital to worship.<sup>25</sup> He argues that "what truly forms worshipers is regular attendance in a church that practices a normative liturgy. This patterned way of living reveals another feature of active participation: to participate actively in the liturgy is to become so involved that we are absorbed into its rhythm."<sup>26</sup> Yet when the primary way a congregation worships shifts from physical presence in the same space to online platforms, the meaning of "regular attendance" and "active participation" must shift too. Does regular participation in online worship have the capacity to form participants in this way – to absorb worshippers into its rhythm?

In order to properly calculate AWA, one must ask if physical presence is necessary for participation. This question was not prompted simply by the advent of the internet and early explorations of virtual worship. It started long before with the emergence of new technologies that changed worship behavior and accessibility – radio, and later television ministries. For example, in a small column from 1948 in a publication called *Christianity and Crisis*, there is debate about whether those who listened to worship broadcast on the radio are counted as part of the church-going public.<sup>27</sup>

The framing of the question connects to the shift from modern to post-modern ecclesiology for it raises the question of how "real" a person's community connections can be when practiced through virtual means. Estes points out that no one would have considered

<sup>&</sup>lt;sup>25</sup> Simon Chan, *Liturgical Theology: The Church as Worshipping Community* (Downers Grove, IL: IVP Academic, 2006), 158–60.

<sup>&</sup>lt;sup>26</sup> Chan, Liturgical Theology: The Church as Worshipping Community, 159.

<sup>&</sup>lt;sup>27</sup> Ecumenical Press Service, "Broadcasting and Church Attendance," *Christianity and Crisis* 8, no. 21 (December 13, 1948): 166.

listening to a worship service or sermon on the radio or watching it on TV to be the same as worship together in a physical space.<sup>28</sup> He argues:

A modern person would never confuse the church with a TV program or radio show. A modern person living in the modern world might watch their favorite pastor on TV or listen to him on the radio, perhaps even doing so more often than attending a bricks and mortar church, but they would never confuse those "ministries" with a church. They would never feel that the 2D pastor on their noise box was *their* pastor. As a whole, they would never feel that church membership means a commitment to listening to a radio sermon.<sup>29</sup>

Within the framework of his argument, it would mean from a modern point of view, those who tune into worship via radio or television would not be counted in AWA because they did not "attend" worship.

Yet the modern paradigm is also limited, seemingly discounting the participation of those unable to attend the communal worship gathering. This assumption that physical presence is required for worship means that churches would not include in their worship counts church members such as the homebound unless they were able to attend with special effort. For example, we see this perspective at play when Florence Christian never even considered the question of whether we should count in our AWA the number of downloads of our sermons from the website.

This modern paradigm, which centers the physical worship experience as the "true" worship experience, persists today. For example, one can see this centering of the physical (or "in-person") worship experience in a 2018 column in *The Christian Century* by Peter Marty, who related a story told to him and then offers his opinion of live streaming:

A parishioner told me recently that her daughter's family had found the perfect church in Dallas. "They don't go often," she said, "because the church live streams its services.

<sup>&</sup>lt;sup>28</sup> Estes, SimChurch: Being the Church in the Virtual World, 26.

<sup>&</sup>lt;sup>29</sup> Estes, SimChurch: Being the Church in the Virtual World, 26–27.

They can watch it anytime. If the kids are playing in the family room or Mom or Dad are busy pulling brunch together, they can have worship on in the background. It's really neat. Have you ever heard of this?" "Yes," I told her, "I know all about live streaming." ... I have decided that making Sabbath worship an integral part of one's life is highly inconvenient. For those who stay away from communal worship because Sunday is the day to arrange personal leisure, take special care of oneself, or get the kids off to soccer, making time for church is just plain inconvenient. For those of us who make church a priority, Sabbath worship is equally inconvenient, though in a different way.<sup>30</sup>

By implying that "Sabbath worship" includes only the act of physically going to a congregation and insinuating that those who choose to worship online have failed to prioritize church attendance over leisure and other worldly pursuits, Marty illustrates the general belief that worship is a physical experience of the congregation gathered together in one time and one space.

Yet the advent of virtual churches and online worship, which in the early days of the internet could not be differentiated from each other, began to push the boundaries of how we define church, and, by extension, whether in-person congregational worship could be considered the primary activity of a church in the way it once was. Estes makes the point:

To create not just real but healthy Christian community in the virtual world, the church at large must find ways to distinguish between discipleship materials (streamed messages and podcast services) and actual churches (real gatherings of real people proactively being the church in the virtual world). This appears to be true with the growing trend of internet campuses. . . . When well-meaning church leaders knock virtual churches, but post blogs and maintain websites to make their sermons available to people, they are actually contributing to that which they think they are preventing – online community.<sup>31</sup>

Estes seems to be speaking directly to comments like those made by Peter Marty, which suggest that live streaming worship is not worship and that consequentially such activities are not "the church" or "true Christian community" in some way.

<sup>&</sup>lt;sup>30</sup> Peter W Marty, "Church Is Inconvenient," *The Christian Century* 135, no. 1 (January 3, 2018): 3.

<sup>&</sup>lt;sup>31</sup> Estes, SimChurch: Being the Church in the Virtual World, 75.

Thus, the practice of defining church as those who worship together physically gives rise to the question of the legitimacy of "virtual" or "online" churches. This question was explored in the first years of the twenty-first century as the continued growth of the internet opened new ways of being church. Much of the conversation seemed to revolve around whether a church could be completely "virtual." Douglas Estes makes a distinction between a church, which he defines as "*a localized assembly of the people of God dwelling in meaningful community with the task of building the kingdom*" and a virtual church as "*a virtually localized assembly of the people of God dwelling the kingdom*."<sup>32</sup> This distinction or classification of the primary localization of the church (a church in the "real world") as different from a church in the virtual world is applicable to many of the early expressions of church in the virtual world or church found online.

In the 1990s and early 2000s, two basic models of churches arose who were worshipping virtually or online. The first model was an all-online virtual church, which was found only in the virtual world.<sup>33</sup> The location of these virtual churches was only online, without a "real-world" or physical location or presence. The churches in this model tended to have avatars through which people engaged with each other, along with chats, blogs, comments and other means by which people communicated with each other, as well as opportunities for prayer and worship, all in a virtual world.<sup>34</sup>

In addition to the all-virtual church, there also arose another model - the internet campus. This model was one in which a church, most often a megachurch that already had multiple

<sup>&</sup>lt;sup>32</sup> Estes, SimChurch: Being the Church in the Virtual World, 37.

<sup>&</sup>lt;sup>33</sup> These types of virtual churches are churches such as The Church of Fools, i-Church, St. Pixels, Second Life, which Douglas Estes and Tim Hutchings explore extensively in their books.

<sup>&</sup>lt;sup>34</sup> Hutchings, Creating Church Online: Ritual, Community, and New Media, 2–9.

campuses, created an additional stand-alone campus online. The leader in innovating this model is Life.Church (formerly Life.Church.tv). In many ways, it was a natural extension of their satellite campus model, in which physical campuses of the same church were connected by preaching via satellite.<sup>35</sup> The internet campus of Life.Church launched in 2006, separate from its physical campuses, but included a live stream of worship from one of its physical campuses along with various iterations of chat rooms, opportunities for prayer and conversation among participants, an online pastor, and trained volunteers.<sup>36</sup>

However, the great disruption of COVID-19 has created a different variation of virtual church. This new model could be called a hybrid church online model – a church that has a physical, contextual location where people who live in physical proximity to each other worship in-person, and where online worship is primarily available for those same people as well as anyone else who can now join online. In his extensive ethnographic analysis of online churches, Tim Hutchings argues that with other churches and denominations following in the model of Life.Church there has been "a shift from 'online church' to 'church online', replacing investment in self-contained online communities with projects that use digital media to extend the ministry of local congregations."<sup>37</sup> This extension is what happened during the pandemic when, due to public health restrictions, the only option for many churches to worship safely was to do so online.

In many ways, the pandemic only accelerated a trend that was already happening with the merging of offline and online expressions of religion. Researcher Heidi Campbell describes that

<sup>&</sup>lt;sup>35</sup> Jason Byassee, "Synchronized Worship: The Rise of the Multicampus Church," *The Christian Century* 127, no. 2 (January 26, 2010): 26–29.

<sup>&</sup>lt;sup>36</sup> Hutchings, Creating Church Online: Ritual, Community, and New Media, 168–87.

<sup>&</sup>lt;sup>37</sup> Hutchings, Creating Church Online: Ritual, Community, and New Media, 8.

in our networked society "the online is an extension of the offline religious social world . . . It also means that the practice of religion may involve an invisible or seamless flow . . . a sort of online-offline experience of religious hybridity."<sup>38</sup> This hybrid on-campus and online worship model being lived out by churches around the globe is an example of the coming together of online and offline experiences to create a new expression of church that is both physical and virtual.

The implications of this hybrid church online model will be lived out by churches as the COVID-19 pandemic wanes. It challenges basic assumptions about whether the location of a church is necessitated upon physical presence, both by an individual and a collective community. It also causes both religious leaders and researchers to consider questions about the boundaried nature of church and congregations. By extension, there will also need to be a wrestling with definitions around what it means for someone to worship in a meaningful way or "attend" worship. As the hybrid church online model helps reveal important aspects of what it means to be church and to worship, it will be up to churches to choose how they embrace or distance themselves from this model.<sup>39</sup>

#### VII. REDEFINING AVERAGE WORSHIP ATTENANCE

As we are living into a new ecclesiological understanding in a hybrid model of church, we must approach AWA in a hybrid way. We must merge our prior understanding of AWA based on physical presence in worship with the analytics available from the platforms on which we worship online. The AWA has been a vitally important metric for individual congregations

<sup>&</sup>lt;sup>38</sup> Heidi Campbell, "Understanding the Relationship between Religion Online and Offline in a Networked Society," *Journal of the American Academy of Religion* 80, no. 1 (March 2012): 82–83, https://doi.org/10.1093/jaarel/lfr074. <sup>39</sup> Some denominations and churches may have an ecclesiology that lend itself to better embracing these questions more definitively than the ecclesiology of the Disciples of Church, who tend to place more emphasis on orthopraxis than orthodoxy. For Florence Christian Church, it will be how we live into this model that will reveal our ecclesiology, not that we will state our ecclesiology and then live it out.

as well as groups of congregations (denominations, judicatories, types of congregations, and so forth). As an established commonly used metric, it will continue to be so for the foreseeable future. As such, there needs to be a method of calculating AWA which merges in-person worship and online worship attendance.

A popular model of management theory called *outcome thinking* is useful here. In part, outcome thinking is based on the model of W. Edwards Deming, a management theorist who shifted approaches to production in mid-twentieth century America by introducing the concept of quality.<sup>40</sup> In his seminal work *Out of Crisis*, Deming shares his foundational idea that all production can be viewed as a system which starts with the materials, continues through production, assembly and inspection, results in the distribution of goods and then ultimately focuses on the consumer and their response.<sup>41</sup> Deming argues that his approach to quality in manufacturing production can also be applied to service industries.<sup>42</sup> This idea that an organization's activities should result in some type of outcome (desired or not) has become a fundamental assumption in organizational management and culture in both the for-profit and non-profit world.<sup>43</sup> Rendle and others have simplified Deming's model and created a framework

<sup>&</sup>lt;sup>40</sup> Robert Mark Penna and William J. Phillips, *Outcome Frameworks: An Overview for Practitioners*, 1st ed. (Rensselaerville, NY: The Rensselaerville Institute, 2004), 14–15. W. Edwards Deming, a statistician, came to prominence for his work rebuilding the Japanese economy following World War II.

<sup>&</sup>lt;sup>41</sup> E. Edwards Deming, *Out of Crisis* (Cambridge, MA: Massachusetts Institute of Technology Center for Advanced Engineering Study, 1982), 4–5.

<sup>&</sup>lt;sup>42</sup> Deming, Out of Crisis, 183–247.

<sup>&</sup>lt;sup>43</sup> Steve Rothschild and Bill George, *The Non Nonprofit: For-Profit Thinking for Nonprofit Success*, 1st Edition (San Francisco, CA: Jossey-Bass, 2012), 47–63; Penna and Phillips, *Outcome Frameworks: An Overview for Practitioners*, 5–22.

to break down any system.<sup>44</sup> A simple Outcome Thinking Systems Model breaks down any system into four parts: input, throughput, output, and outcome.<sup>45</sup> [See Figure 6]



#### Figure 6- A simple Outcome Thinking Systems Model

Now, why apply a systems model to worship? Because, at its core, worship is an essential and defining process of a church. It is a core system. Prominent sociologist Mark Chaves, who

began the National Congregations Study in 1998, defines a congregation as a:

social institution in which individuals who are not all religious specialists gather in physical proximity to one another, frequently and at regularly scheduled intervals, for activities and events with explicitly religious content and purpose, and in which there is continuity over time in the individuals who gather, the location of the gathering, and the nature of the activities and events at each gathering.<sup>46</sup>

Chaves states, "Congregations' central purpose is of course the expression and transmission of

religious meaning, and corporate worship is the primary way in which that purpose is pursued."47

As worship is the defining process which is essential to a congregation being a congregation,

using a model which breaks down the worship process in a systematic way allows for the

application of the meaning of in-person worship attendance to be combined with available online

<sup>&</sup>lt;sup>44</sup> Gil Rendle, *Doing the Math of Mission: Fruits, Faithfulness, and Metrics* (Nashville, TN: Rowman & Littlefield, 2014), 13–17; Gil Rendle, *Back to Zero: The Search to Rediscover the Methodist Movement* (Nashville, TN: Abingdon Press, 2011), 37–41; Penna and Phillips, *Outcome Frameworks: An Overview for Practitioners*, 14; Rothschild and George, *The Non Nonprofit*, 49–52.

<sup>&</sup>lt;sup>45</sup> This breakdown is my model based on the work of Gil Rendle found in *Doing the Math of Mission: Fruits, Faithfulness, and Metrics* and on descriptions of terms found in *Outcome Frameworks* by Robert M. Penna and William J. Phillips.

<sup>&</sup>lt;sup>46</sup> Mark Chaves, *Congregations in America* (Cambridge, MA: Harvard University Press, 2004), 1–2.

<sup>&</sup>lt;sup>47</sup> Chaves, *Congregations in America*, 127.

worship analytics to create a hybrid AWA. This hybrid AWA is necessary to meet the emerging needs of post-pandemic congregations.

By applying the Outcome Thinking Systems Model to AWA, one can ask which role (an input, a throughput, an output, or an outcome) does AWA play in a congregation's specific system of worship. This is a complicated process because when analyzed AWA can function as the measurable figure in *all parts* in this model. This multiplicity of roles illustrates the complex nature of this one deceptively simple figure. Moreover, the complexity and confusion about the *role* AWA plays within outcome thinking systems (i.e., Is it an output? An input? An outcome?) means that people use the term with different purposes. AWA can function in each part of an Outcome Thinking System Model. By discovering how one is using AWA, one can, in turn, begin to find a comparable analytic available from one's online worship platform.

#### A. Average Worship Attendance as Input

The AWA can function as an input, meaning it is what is the material or resource that initiates a system. It is a countable noun. The number of people who worship together on a regular basis is one thing that a congregation can count. Rendle argues that AWA is an input because it is a resource that is easily counted: "We are counting attendance at a time when worship is seen as a 'program option' by people deeply committed to a search for faith."<sup>48</sup> For Rendle, worship is the input, which with a throughput activity, results in outcomes like a disciple or a changed human being. Gil Rendle and Susan Beaumont note that, "The number of hours, visits, calls, reports, and so on is not a measure of what is produced in ministry but rather a

<sup>&</sup>lt;sup>48</sup> Rendle, Doing the Math of Mission: Fruits, Faithfulness, and Metrics, 17.

measure of what is expended in ministry." <sup>49</sup> The number of people who gather for worship is an example of what can be "expended" as a resource in ministry.

INPUT (Resources, Nouns)	THROUGHPUT (Activities, Verbs)	OUTPUT (The Number of Services Provided)	OUTCOME (The Difference or Change)
Our church average	Means we need to	At least 100 hymnals	so that people can
worship attendance	buy		connect with God
of 100 people			through song

Figure 7 – The AWA as Input

The AWA also functions as an input for clergy and church leaders to help manage the organization. During the "Church Growth" movement of the 1980s and 1990s, a typology for churches developed around AWA, which described typical patterns of behavior of different sizes of congregations, and which offered clergy and church leaders advice about their roles within those churches of different sizes. This typology can be traced to the work of Arlin J. Rothauge, who in 1983 during his work in the denominational office of the Episcopal Church, wrote a training document called *Sizing Up a Congregation for New Member Ministry*, which offered a typology of four different types of congregational life and culture, and, in turn, leadership, all based upon AWA.<sup>50</sup> Rothauge considered his purpose to be evangelistic in nature. He stated that his work's "basic hypothesis is that *the most effective means of carrying out a new member ministry varies with the size of the congregation.*"<sup>51</sup>

While there were other factors in this typology, one of the main factors presented was not just the number of members on the books but rather the AWA of a congregation. Rothauge states, "One gauge of active membership is the average attendance at worship over a one-year

 <sup>&</sup>lt;sup>49</sup> Gilbert R. Rendle and Susan K Beaumont, "The Importance of Outcomes," *Congregations* 37, no. 3 (2010): 17.
 <sup>50</sup> Theodore W. Johnson, "Current Thinking on Size Transitions," in *Size Transitions in Congregations*, ed. Beth Ann Gaede (Bethesda, MD: The Alban Institute, 2001), 3–4.

<sup>&</sup>lt;sup>51</sup> Arlin J. Rothauge, *Sizing Up a Congregation for New Member Ministry* (New York: The Education and Ministry Office of the Episcopal Church, 1983), 2, https://episcopalchurch.org/files/CDR\_series1(1).pdf.

period. We are not interested here in the number of communicants or baptized persons on the record. The following analysis assumes that each numerical range represents a membership that demonstrates a commitment and maintains a vitality in both their worship and work."<sup>52</sup> Chaves also identifies congregational size as one of the two most important variables and defining characteristics of congregations, alongside religious tradition: "Size . . . influence[s] virtually everything congregations do, from the nature and extent of their social services to the nature of their political and public engagement to the kinds of religious culture they produce and reproduce."<sup>53</sup> In short, the AWA of a congregation shapes and therefore helps determine a congregation's behavior.

This typology was expanded and used to describe how congregations of different sizes function in their relationship with the incorporation of new members, how a clergy person should operate within a congregation of a certain size, and what steps a leader needed to take to navigate a congregation between different types.<sup>54</sup> Lyle Schaller, a prominent church consultant, has been "quoted as saying that average worship attendance was a better indicator of congregational behavior than denomination, geography or neighborhood."<sup>55</sup>

Yet, some argue that the AWA metric can no longer play the same role. David Odom, director of Leadership Education at Duke Divinity School, argues that AWA has lost its ability to be a predictor of congregational behavior because what it means to be an active participant in a congregation has changed.<sup>56</sup> Odom points out that AWA helped congregations make decisions

<sup>&</sup>lt;sup>52</sup> Rothauge, *Sizing Up a Congregation for New Member Ministry*, 1.

<sup>&</sup>lt;sup>53</sup> Chaves, *Congregations in America*, 16.

 <sup>&</sup>lt;sup>54</sup> Alice Mann, *The In-Between Church: Navigating Size Transitions in Congregations* (Bethesda, MD: The Alban Institute, 1998); Beth Ann Gaede, *Size Transitions in Congregations* (Bethesda, MD: The Alban Institute, 2001).
 <sup>55</sup> Odom, "RIP, Average Attendance | Faith and Leadership," accessed January 13, 2021, https://faithandleadership.com/rip-average-attendance.

<sup>&</sup>lt;sup>56</sup> Odom, "RIP, Average Attendance | Faith and Leadership."

about everything from how much curriculum to buy to how big a sanctuary to build to predictions about revenue.<sup>57</sup> He states, "Church attendance was once a key indicator of a virtuous cycle. If the church could get a new person in the pew regularly, offerings would go up, involvement in small groups and missions would climb, and the church would be healthy. If attendance was declining then everything else would [also] eventually decline."<sup>58</sup> Odom, like others, would argue that AWA is not a metric that has the same value as it once did. Instead, a congregation needs to create and develop new metrics of engagement.

While new metrics of engagement would be helpful to individual congregations, as Rothauge's typology demonstrates, congregations of similar size may behave in similar ways. If we view AWA as an input as Rendle advocates about church attendance in general and as the Rothauge size typology assumes, then we are attempting to count the number of people who are active participants in a congregation's life to be able to gage the size of a congregation. If this is the question you are trying to answer, then you view online worship as an input. To answer this question the best analytic available would be to include 1-Minute Views on Facebook and all Views on YouTube (which are equivalent to about 30 seconds).<sup>59</sup> For Florence Christian Church, if we approached our online views of worship services as an input, our current AWA would be 148.<sup>60</sup>

#### B. Average Worship Attendance as Throughput

The AWA can also function as a throughput, which are the activities that an organization performs. Again, it is countable. It can be a verb as average *worship* attendance is the way of

<sup>&</sup>lt;sup>57</sup> Odom, "RIP, Average Attendance | Faith and Leadership."

<sup>&</sup>lt;sup>58</sup> Odom, "RIP, Average Attendance | Faith and Leadership."

<sup>&</sup>lt;sup>59</sup> "What Counts as a View on YouTube, Facebook, and Instagram?," Wyzowl, accessed January 21, 2021, https://www.wyzowl.com/what-counts-as-a-view-on-youtube-facebook-instagram/.

<sup>&</sup>lt;sup>60</sup> See Appendix A for a detailed description for how this figure and other current AWA figures were calculated.

quantifying an activity (worship) in which a group of people (church) engage together. It can also lead to outputs and outcomes.

INPUT (Resources, Nouns)	THROUGHPUT (Activities, Verbs)	OUTPUT (The Number of Services Provided)	OUTCOME (The Difference or Change)
One hundred people	attend worship each week	So that five congregational songs can be sung and	people can worship God together through song

Figure 8 – The AWA as Throughput

Seen as a throughput, *worship* becomes the means of belonging to a congregation as well as awarding other rights and privileges in certain instances. Protestant Congregations are voluntary associations in the United States, which means that membership is determined not by geography or neighborhood but rather by individual choice. Using Chaves' definition of congregations and his argument that worship is the main activity of a congregation, an individual's presence and participation in the main activity of a congregation is a signal that they are a part of the congregation.

While it is true that there are times when individuals voluntarily associate with and belong to a congregation without attending worship, worship attendance is typically a signal of belonging. This association is seen in the struggle of those who are homebound or unable to attend worship regularly due to other circumstances. During visits with people unable to attend worship, I often hear about how disconnected they feel from the church because they are unable to worship in community. Attending worship is how an individual most easily expresses and experiences their belonging.

Worship as a throughput not only results in an outcome of belonging but also in specific rights, privileges, and responsibilities in some congregations. For example, as a congregationally

led church, the congregation of Florence Christian Church has the final authority about the decisions made there. The congregation is composed of its membership; one of the ways to maintain membership in the church is by attending worship. Florence Christian Church's Constitution and By-Laws state,

The membership of this church shall consist of those who are now identified as members of the church and those who shall unite with it by baptism or transfer of membership. Voting privileges shall be accorded to all members of the congregation who have shown an active commitment through a continuity of attendance, service or giving in the twelve months prior to a vote.<sup>61</sup>

Membership at Florence Christian Church, which can be maintained through participation in worship, gives an individual the right to vote on important items such as the church budget, hiring of a minister, selling of property, the mission of the church, denominational ties and so much more. Thus, worship attendance not only imbues attendees with a sense of belonging and relationship to God and others; it is also a critical polity-related matter. It confers upon them particular rights and responsibilities of congregational governance.

In the outcome thinking system, AWA can be a way to calculate worship as a throughput when worship is viewed as an activity. This understanding of AWA is the way of measuring the activity of worship (or the number of people who attend a worship service as the countable figure for the activity of worship). In the online worship analytics available, the best figure to measure would be the length of time that viewers watched worship, or the duration of their activity of worship. For Florence Christian Church, if we approached our online views of worship services as a throughput, our current AWA would be 3903 minutes of worship.

<sup>&</sup>lt;sup>61</sup> "Constitution and By-Laws of the Florence Christian Church," June 28, 2020.

### C. Average Worship Attendance as Output

The AWA can also function as an output, the product of an organization's resources and activities. From this perspective, the input is the resources, time, energy, money, space, and other factors that go into offering a worship service. The throughputs in this model can be any worship activities such as preaching, singing, or the entirety of worship if viewed as an activity. As such, the resulting output would be the number of people who worship or AWA. The outcome in the system, then, would be whatever the goal of the worship is or the change that a congregation would hope to see because people gathered to worship.<sup>62</sup>

INPUT (Resources, Nouns)	THROUGHPUT (Activities, Verbs)	OUTPUT (The Number of Services Provided)	OUTCOME (The Difference or Change)
Ten percent of the	which includes	This results in an	which means that
church's budget is	singing each week in	average of 100	our congregation
spent on a music	worship	people attending	connects with God
ministry		worship,	through song

Figure 9 – The AWA as Output

As an output, worship is seen as the way that a church is fulfilling the mission to "make disciples," its outcome. You can see this in the emphasis on increasing worship attendance during the Church Growth movement. Lyle E. Schaller epitomizes this connection in his book 44 *Ways to Increase Church Attendance* when he comments that one's worship quality and a positive experience is the reason why a visitor will return.<sup>63</sup> In this scenario, worship is the vehicle which leads to church growth. Increasing their AWA is the output that a church, which aspires to grow, wants to measure, because attendance at worship is a sign that the church is making disciples. Some argue that this is flawed reasoning for someone attending worship is not

<sup>&</sup>lt;sup>62</sup> This understanding of worship outcomes is dependent upon how one views the role of worship in one's ecclesiology and what one claims theologically about the nature and purpose of worship.

<sup>&</sup>lt;sup>63</sup> Lyle E. Schaller, 44 Ways to Increase Church Attendance (Nashville, TN: Abingdon Press, 1988), 21–23.

the same as making a disciple out of someone. However, it fits as an output leading to an outcome.

There is a difference between an outcome and output. While Rendle does not distinguish between them in his use of the Deming model, authors Robert Penna and William Phillips make an important distinction between output and outcome. They define an outcome as "the bottom-line results for a program or organization."<sup>64</sup> They argue that these outcomes are often not defined in numbers and have different emphases based on the outcome model used. Rather, they say the outcomes in different models "describe *projected* positive changes in condition, behavior, attitude or status of an individual or group served by a program . . . or used to describe what has already been accomplished. In still other cases, outcomes reflect the core purpose or mission of a program or organization, its vision for success in the future."<sup>65</sup> By contrast, they define an output as "the endpoint or service that is produced by a given process or activity. Outputs are generally described in overall volume terms. While outputs have clear outcome implications, they are not the same as outcomes."<sup>66</sup> Asking whether AWA is an output, or an outcome speaks directly to the complex nature of AWA. Are we simply counting the number of people in a worship service? Or do we believe some change is occurring by them being there?

If worship is viewed as an output - the measurable results of time, energy, creativity, and resources expended to produce the activity of worship that result in people attending worship – then an available analytic is needed to understand the number of people who worship together. The available analytic most analogous to this type of experience is the "concurrent viewers" metric (YouTube) or "peak live viewers" (Facebook) or similar analytic available which counts

<sup>&</sup>lt;sup>64</sup> Penna and Phillips, *Outcome Frameworks: An Overview for Practitioners*, 25.

<sup>&</sup>lt;sup>65</sup> Penna and Phillips, *Outcome Frameworks: An Overview for Practitioners*, 24.

<sup>&</sup>lt;sup>66</sup> Penna and Phillips, Outcome Frameworks: An Overview for Practitioners, 24.

the number of people who are joining in an online worship experience at the same time, whether that online worship is live streamed or being premiered. This analytic is like counting the number of people who join a video conference worship experience. This analytic counts who join together at a specific time for a specific purpose (worship). For Florence Christian Church, if we approached our online views of worship services as an output, our current AWA would be 116.<sup>67</sup>

# D. Average Worship Attendance as Outcome

If we believe that something happens when we attend worship, even if that something is intangible, then AWA can also function as a measurable outcome - the desired result of a system. Congregations have gathered for worship across the centuries because we believe that through worship something is happening internally to individuals and collectively as a community. God is working through worship. In his work *Imagining the Kingdom*, James K. A. Smith, draws on the work of Maurice Merleau-Ponty and Pierre Bourdieu to develop a liturgical anthropology that views worship as an embodied experience that fundamentally forms people in certain ways.<sup>68</sup> While we might not be able to measure the ways that people are being formed through worship (how people are being formed), we can count, and, by extension, measure the number of people who are being formed.

INPUT (Resources, Nouns)	THROUGHPUT (Activities, Verbs)	OUTPUT (The Number of Services Provided)	OUTCOME (The Difference or Change)
Ten percent of the church's budget is spent on a music ministry	Which results in singing each week in worship,	Specifically in thirty minutes of music during worship	During which an average of one hundred people are formed through song

Figure 10 – The AWA as Outcome

<sup>&</sup>lt;sup>67</sup> This figure does include the use of a multiplier of 2.1. See Appendix A for discussion.

<sup>&</sup>lt;sup>68</sup> James K. A. Smith, *Imagining the Kingdom: How Worship Works*, vol. 2, Cultural Liturgies (Grand Rapids, MI: Baker Academic, 2013).
Many individuals and groups also approach AWA, specifically AWA over time, as an outcome in the Outcome Thinking Model, especially when it is used as a measurement instead of a countable.<sup>69</sup> When approached as an outcome, it is seen as the result of other aspects of a congregation's life. First, it is a measurement used by all levels of denominational leadership, including individual congregations, as one (if not the primary or only) metric to signal trends in congregational health, and often denominational health. For example, when I first started in ministry, a mentor taught me how to use our denomination's yearbook to look up and track a congregation's AWA and see whether it was an upward or downward trend as a tool to help me understand how a congregation's health and organization had changed over time. Moreover, research that uses worship attendance as a metric to indicate a correlation or a causation of behavior or societal trend abounds.<sup>70</sup> As such, the trend of AWA is the outcome.

If AWA is viewed as an outcome based on the premise that many of a church's resources (inputs) produced the activity of worship which resulted in people engaging with the congregation and in some way connecting with God, then in online worship one would look for an analytic to pinpoint the number of people engaging with one's congregation. If the outcome that was desired was engagements or connections, then the appropriate analytic to measure is

<sup>&</sup>lt;sup>69</sup> Gil Rendle, a United Methodist Elder and denominational leader, has written extensively on metrics and the church. He has provided one of the more recent explorations of the subject in his book *Doing the Math of Mission: Fruits, Faithfulness, and Metrics.* He makes an important distinction between counting and measuring: "Counting is giving attention to numbers. When counting, the question to be answered is "How many?" . . . Measuring is giving attention to change. . . . not "How many?" but rather "How far?" Conversations about "How far?" are frequently about change that can be measured over time." Gil Rendle, *Doing the Math of Mission: Fruits, Faithfulness, and Metrics* (Nashville, TN: Rowman & Littlefield, 2014), 14.

<sup>&</sup>lt;sup>70</sup> As few examples include: Cristiano Vezzoni and Ferruccio Biolcati Rinaldi, "Church Attendance and Religious Change in Italy, 1968 - 2010: A Multilevel Analysis of Pooled Datasets," *Journal for the Scientific Study of Religion* 54, no. 1 (March 2015): 100–118; Leslie J Francis, "Parental and Peer Influence on Church Attendance among Adolescent Anglicans in England and Wales," *Journal of Anglican Studies* 18, no. 1 (May 2020): 61–73, https://doi.org/10.1017/s1740355320000169; David S. (David Stuart) Bp Walker, "Personal Prayer, Church Attendance and Social Capital among Rural Churchgoers: Quantitative Empirical Methods as a Tool for Mission and Ministry," *Rural Theology* 9, no. 1 (2011): 39–47, https://doi.org/10.1558/ruth.v9i1.39; Paul J Olson and David Beckworth, "Religious Change and Stability: Seasonality in Church Attendance from the 1940s to the 2000s," *Journal for the Scientific Study of Religion* 50, no. 2 (June 2011): 388–96.

unique viewers; this gets at the heart of how many people are engaging with one's congregation.

This metric is not easily accessible in Facebook's insights since the social network displays unique 3-second views prominently, but not unique 1-minute views. Using the 3-second metric is a challenge because as one blogger summarizes, "counting 3-second views on Facebook as 'attenders' is a little like counting people who drive by your building as attenders."<sup>71</sup> However, deeper in downloadable metrics one can retrieve the number of unique 1-Minute views. As such, a combination of unique viewers from YouTube and unique 1-Minute views from Facebook can help one measure a desired outcome of engagement. For Florence Christian Church, if we approached our online views of worship services as an outcome, our current AWA would be 123.

### VIII. AVERAGE WORSHIP ATTENDANCE POST-GREAT DISRUPTION

Now that we are living into a new hybrid model of church online with worship both online and on-campus, where does that leave AWA? Does it remain a valuable metric for Florence Christian Church? If so, how do we calculate it? If, as Mark Chaves argues, worship is the primary and defining activity of a congregation then both counting and measuring the number of people who engage in that activity will continue to be important to congregations. As worship online becomes woven more thoroughly into the lives of local congregations, once previously straightforward questions deserve thoughtful responses.

In this project I have approached the question of how to calculate AWA based on both inperson worship attendance and online analytics based on the outcome thinking systems model. Within this model it is revealed that AWA can function as an input, throughput, output and even

<sup>&</sup>lt;sup>71</sup> "Some Awkward Questions About How to Measure Online Church Attendance (+ 5 Growth Strategies) - CareyNieuwhof.Com."

the outcome. This model invites us to consider the end for which we value AWA. In short, we must first discern our church's desired outcome, and then establish what role AWA plays in achieving that outcome. As we approach how (and whether) AWA online is an input, throughput, output or outcome, we first sort through the analytics available on different platforms to try to discern which ones match the desired measurement. We must look at the available online analytics and decide which metrics to include/exclude.

In the end, there are many challenges in determining an AWA, especially in the new hybrid on-campus and online worship model that many congregations, including Florence Christian Church, will continue to live into, even after pandemic related restrictions are lifted.<sup>72</sup> The essential learning is that church leaders need to be intentional about the role and function of counting and calculating AWA figures. Once these decisions about the nature of the church, worship, and the role and function of AWA have been made, using the Outcome Thinking Model, choosing the best online analytics becomes clear. Yet, these many levels of decisions are hard to maintain in the long term, especially as various platforms and their available analytics may change. To move from simply counting and calculating AWA to measuring it requires consistency over time.

<sup>&</sup>lt;sup>72</sup> Florence Christian Church has invested over \$16,000 in 2020 and plans to invest another \$12,000 in 2021 in hardware plus time, contract workers, and energy in creating a quality live streaming online worship service which will continue for years to come.

To aid in this challenge, an infographic [See figure 11] can serve as a helpful tool in simplifying and standardizing the



Figure 11 - How to Calculate Online Worship Attendance Infographic

task.<sup>73</sup> The "How to Calculate Online Worship Attendance" infographic will be used at Florence Christian Church to help explain to our church leaders, congregation, and others about how we are calculating our figure for AWA.<sup>74</sup> It will also serve as a useful tool as we continue to live into the hybrid model of church. As technology changes, this infographic will remind us to focus on what we are really interested in measuring when we calculate AWA.<sup>75</sup>

#### IX. CONCLUSION: FLORENCE CHRISTIAN'S MAGIC NUMBER

In 2020, Florence Christian Church had a goal of increasing engagement with the church. As a sign of that engagement, we were hoping to grow average worship attendance by fifteen percent. Knowing that we equated worship attendance with engagement helps us to know what analytic we wanted to use to calculate our AWA. We believed that AWA was an outcome. Using the infographic, we decided to use the analytics for unique viewers and the resulting figure for our AWA was 123. This is the current "magic" worship number of Florence Christian Church. It is the number we put on the construction loan application as we continue our path of living into the mission to which God calls us.

In many ways, this figure is disappointing. It is nowhere near the 183 AWA we had prior to the COVID-19 pandemic, much less where we had hoped to be by the end of 2020. However, it is a starting place. Moreover, as we continue to set goals, calculate and measure AWA, and as

<sup>&</sup>lt;sup>73</sup> As a visual media, infographics can help take complex ideas and break them down in ways that are usable. Having an infographic easily accessible will allow Florence Christian to be consistent in choosing which analytics to focus attention on. It will be an invaluable resource because it will help us make sure that we are tracking the appropriate analytics over time to be able to identify trends both over months and years in worship attendance, both on-campus and online.

<sup>&</sup>lt;sup>74</sup> See Appendix B for the "How to Calculate Online Worship Attendance" infographic.

<sup>&</sup>lt;sup>75</sup> This infographic is especially important because we are moving beyond the free streaming platforms of Facebook and YouTube. We are transitioning to a paid platform called Boxcast, which will be the main platform for people worship online, especially on our website. However, we will continue to broadcast to Facebook and YouTube.

we continue to live into the new ecclesiology of a hybrid church, we know more about what we mean when we answer the question, "How big is your church?"

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#### **APPENDIX A**

#### **Calculating Average Worship Attendance**

To calculate Average Worship Attendance (AWA) incorporating online data for Florence Christian Church (and any church) is a complicated process. Originally, I had hoped to be able to calculate AWA for 2020. Unfortunately, I ran in to multiple barriers which included:

- Our sound technician throwing away the sheet on which he had written the in-person worship attendance from January 1 – March 6, 2020
- Not regularly counting those worship team and special guests who were present in the sanctuary during live streaming
- Not being able to count those who joined the worship by conference call when that was offered
- Facebook not easily providing "peak live viewer" analytics for videos more than ninety days old
- Administrative staff misplacing our check-in sheets for those weeks when we provided on-campus worship for a few weeks in the summer and fall of 2020
- There were multiple weeks where we had technical difficulties that led to multiple video streams and multiple sets of analytics for the same worship service

Ultimately, these barriers made it too time consuming to try to recreate data, especially knowing that it would be extremely inaccurate. One major learning from encountering these barriers is that to be able to calculate AWA accurately for an extended period of time requires the creation

of a process prior to worship. Trying to re-create figures after the fact complicated an already complex process.

Instead, I developed a process to calculate AWA for the first few weeks of 2021 so that we would be able to gather accurate data to be able to calculate our AWA moving forward. I was able to include six weeks before I left on sabbatical. The process was this:

- During the worship service, I (or the sound technician) would write down the number of people present for on-campus worship and those who were a part of the worship team. This process is the same one that we would use prior to adding online worship with one exception separating the number of worship team members from worship participants. Prior to moving worship online, the worship team would be included in the number of people counted in the sanctuary. However, worship team members need to be counted separately so that they can still be counted when services are pre-recorded.
- The following Sunday, I checked the previous week's videos and recorded the appropriate analytics. Most of these figures are easily found by clicking on the insights or similar button.
- There is one choice that a church must make about online attendance and that is about whether to use a multiplier, a set quantity by which a figure is multiplied, or not. There are many articles available online suggesting the pros and cons of doing so. The basic argument for using a multiplier, especially during this time of COVID-19, is that you do not know whether each view is one viewer or multiple viewers. I believe that a multiplier is a way to try to account for families watching together, which I know to be true from other sources of information such as personal story and comments.

Calculating `	Views
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Date	On-Campus Attendees	Worship Team	Facebook 1-Minute Views (Total)	YouTube Views	Total
1/3/2021	2	9	112	30	153
1/10/2021	4	11	130	41	186
1/17/2021	5	11	133	40	189
1/24/2021	3	8	8	94	113
1/31/2021	4	9	92	15	120
2/7/2021	7	10	72	38	127
TOTAL	25	58	547	258	888
AVERAGE	4	10	91	43	148

# **Calculating Minutes Viewed**

Date	On- Campus Attendees	Worship Team	In- Person Worship Minutes	Facebook Minutes Viewed	YouTube Watch time (hours)	YouTube Min. Viewed	Total Minutes of Worship
1/3/2021	2	9	660	2814	6.9	414	3888
1/10/2021	4	11	900	3269	11.4	684	4853
1/17/2021	5	11	960	3017	14	840	4817
1/24/2021	3	8	660	195	22.9	1374	2229
1/31/2021	4	9	780	2556	3.6	216	3552
2/7/2021	7	10	1020	2098	16	960	4078
			1000				
TOTAL	25	58	4980	13949	74.8	4488	23417
AVERAGE	4	10	830	2325	12	748	3903

In this set of data, you must convert the different measurements of time (minutes, hours) into the same unit. Converting hours to minutes is the easiest. You must also convert an "in-person" attendee to the time spent in worship. Our services typically run about an hour, so I used the conversion of 1 in-person attendee = 60 minutes of worship.

Date	On- Campus Attendees	Worship Team	Facebook Peak Live Viewers	YouTube Concurrent Live Viewers	TOTAL	With Multiplier
1/3/2021	2	9	49	0	60	114
1/10/2021	4	11	54	4	73	137
1/17/2021	5	11	47	10	73	136
1/24/2021	3	8	0	30	41	74
1/31/2021	4	9	44	0	57	105
2/7/2021	7	10	38	16	71	130
TOTAL	25	58	232	60	375	696.2
AVERAGE	4	10	39	10	63	116

## **Calculating Live Views**

I used a multiplier of 2.1. For all the data, I used lifetime data. I did not limit it to a specific time period such as the week after the worship service was available. Based upon personal testimony, I know that people watch the services at various times over the course of the week. By recording the lifetime data at a regular time each week, you can eliminate those views which come from people searching (but not expressly looking for this church's worship service).

Date	On- Campus Attendees	Worship Team	Facebook Unique 60- Sec Views	YouTube Unique Viewers	Total
1/3/2021	2	9	94	24	129
1/10/2021	4	11	112	31	158
1/17/2021	5	11	108	31	155
1/24/2021	3	8	7	72	90
1/31/2021	4	9	71	13	97
2/7/2021	7	10	66	24	107
TOTAL	25	58	458	195	736
AVERAGE	4	10	76	33	123

### **Calculating Unique Viewers**

To find the Unique 60-Second Views on Facebook's insights, you must use the export function and export data into a CSV file.

#### **APPENDIX B**

Infographic on How to Calculate Average Worship Attendance

