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Incentivized Learning and Libraries: A Comparative Study of Summer Reading Programs in Connecticut

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A Comparative Study of Summer Reading Programs in Connecticut

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Introduction

With digital forms of entertainment and media more inescapable than ever, it has become increasingly difficult to encourage children and teens to read. Simultaneously, despite an overwhelming amount of literature demonstrating the educational benefits of reading, especially as a necessity in the summer between academic years, library budgets are shrinking as federal funding nears its end. How do libraries promote summer reading amidst declining interest and decreased funding? Using data from public libraries across Connecticut, this paper investigates how libraries are adapting their children's summer reading programs to a changing landscape, how programs are designed to incentivize reading without eliminating the intrinsic benefits, and whether summer reading participation and engagement are affected by the level of wealth in the town around it.

Combatting Summer Setback

There's little doubt that promoting reading in childhood is important. Reading is a life-long skill that, like any other activity which improves with practice and dedication, must begin at a young age to set the foundation for adulthood. In primary education, reading is an essential component of every teacher's curriculum. The question, however, is what happens when young students are encouraged to read *outside* of school. Reading for pleasure has been shown to have sweeping benefits, from improved reading comprehension and heightened writing ability, grammar, and vocabulary in the classroom to increasingly positive attitudes toward reading, which has been shown to be a key factor of reading achievement and pleasure reading later in life (Clark and Rumbold 2006, 9). At the same time, in a world full of digital distractions and social medias, the statistical trends of pleasure reading are unsettling. According to the U.S. Bureau of Labor Statistics (2018), in 2018, average time spent pleasure reading had declined by 24% from ten years earlier. While individuals over the age of 75 read on average almost an hour per day, people ages 15 to 34 averaged just about six minutes per day (U.S. Bureau of Statistics 2018). Given that reading is somewhat compulsory during primary education, it is between academic terms that it is most important to foster reading for pleasure. Most school systems operate on a nine-month calendar, meaning that publicly educated children spend approximately three-quarters of their developmental years with required, facilitated reading. But research has shown that the three-month gap between school years can be surprisingly significant. In a meta-

study of 13 studies on the effects of summer vacation on academic achievement, students' fall scores were, on average, one tenth of a standard deviation below where it had been in the spring, or the equivalent of one month of schooling (Cooper et al. 1996, 253). Of all subject areas tested, reading comprehension had among the largest of drop-offs, decreasing by double the average, or about two months of education (255). Two months may not sound like much, but that represents over a fifth of the academic year lost to summer vacation. In response to the 'summer setback,' many have proposed redesigning the school year to run year-round, especially considering that the nine-month calendar was originally introduced primarily so that children could participate in agriculture harvests — an agriculture sector that now less than 2% of employed Americans comprise (228). The country's economy has drastically changed, but the academic calendar has remained mostly untouched.

Under the current nine-month system, summer reading is therefore immensely important and beneficial. Summer reading doesn't just have the power to avoid summer setback, but also reverse it: students who participate in summer reading programs actually improve on academic evaluation scores from spring to fall. In a landmark study, Barbara Heyns (1978) found that students who read six books or more during summer vacation experienced unchanged or improved reading ability, while students who read zero books saw reading losses of up to an entire grade level (170). Since then, more recent research has further demonstrated the positive correlation between summer reading and mediated summer setback. In a three-year study from 2006 to 2009 conducted at Dominican University, students who participated in summer reading programs scored 52 Lexile points higher than students who did not participate (Fiore and Roman 2010, 3). In 2013, a University of California, Irvine study found statistically significant differences in test scores between students placed in a summer reading program and those who were not (Kim 2013, 345). Given the overwhelming amount of data in support of summer reading, it is no wonder that 95% of public libraries offer some form of summer reading programs for children (Bertot et al. 2015, 20).

However, that does not mean all summer reading is equally beneficial. Critics of these studies have argued that the ways in which quantity of reading is measured — Heyns tracked number of books read, for example — is misleading. Six picture books for a first-grade student may be appropriate, but a fifth grader reading the same six books, well below their reading level, would be valued the same. Libraries, which have traditionally tracked books read as the key

measure of summer reading achievement, have struggled to confront this conundrum. One possible solution was tested in a 2014 study, in which subjects were given three-question quizzes on the book they had just finished reading. The quizzes were intended to gauge reading engagement and measure how thoroughly the students had processed what they had read, as represented by the student's score. The study revealed a positive correlation between quiz scores and fall reading comprehension scores, suggesting that reading carefully, as opposed to reading a lot, is a better indicator of lasting reading skills (Guryan 2014, 36). In the same study, students who reported enjoying the books they read also scored higher in the fall than students who disliked their assigned books, suggesting the importance of a student's positive attitude toward a their reading material (28). And perhaps not surprisingly, students who read books closest to their reading ability scored the highest on the fall examinations (14). The key, then, is not just for libraries to promote as much reading as possible, but rather to encourage intellectually engaging reading that actually stimulates learning.

Incentivizing Reading, The Right Way

How do libraries motivate students to participate in summer reading programs? Any economist would answer with the guiding motivating factors of nearly all human decisions: incentives. If children are offered rewards for reading, they will read more — or at least this is the thinking that has guided summer reading programs for most of the last couple of decades. My personal memories of childhood summer reading experiences focus largely on what was offered in return for reading milestones. Finishing 10 books may award a frisbee, 20 books might get a gift card to the toy store, 50 books earned free ice cream, and so on. Recent scholarship, however, has questioned the effectiveness of using extrinsic incentives to promote reading. Edmunds and Tancock (2002) studied the effects of various incentives on fourth grade students, splitting their sample into two treatment groups and a control: one group whose reading was rewarded with books, one group which received non-reading physical rewards (pencils, movie tickets, restaurant coupons), and one which received no extrinsic reward for reading. They found no statistical differences in the groups in any of the areas measured, including both number of books read and reading motivation (24). Other studies have demonstrated that extrinsic rewards are not just ineffective, but rather *deter* later pleasure reading after the program ends. In a meta-analysis of 128 studies by Deci, Koestner, and Ryan (1999), tangible rewards were shown to

have a negative effect on intrinsic reading motivation (639). Potentially harmful types of motivation also extend beyond just physical objects like erasers or coupons. A study by Schaffner, Schiefele, and Ulferts (2013) found that two other types of motivation, competition and grade-based, sacrifices reading enjoyment for the sake of reading amount — another potential cause of decreased interest in reading (381). Many summer reading programs rely heavily on these exact types of motivation, including tangible rewards, competition to read more than other students, and grade-based evaluations. That's troubling news for libraries — could summer reading programs that offer extrinsic incentives actually be detrimental to young readers?

Fortunately, more recent literature has shifted the blame away from all kinds of reading incentives and toward specific kinds of rewards. In the same meta-study conducted by Deci Koestner, and Ryan (1999), while *tangible* rewards were found to have a negative effect on intrinsic motivation, *verbal* rewards — namely, positive verbal feedback from parents or instructors — had a positive impact on reading interest (653). It seems apparent that incentives can motivate long-term reading interest, but only the right kinds. Marinak and Gambrell (2005) found that "the more proximal the reward is to the desired behavior, the less undermining it will be to intrinsic motivation" (10). The cost of extrinsic rewards could be mediated by the relevance of the reward to the desired outcome. In this case, if the end goal is to spark interest in reading, the most appropriate reward —and the least damaging to one's intrinsic motivation — would be a book. In the Edmunds and Tancock study (2002), they found that using books as a reward had the same effect as any other physical object — that being no effect. Marinak and Gambrell, however, found that students who were given a book as a reward were about four times more likely to engage in subsequent reading (by choice) than students rewarded with a less proximal reward (16). Library program directors therefore find themselves in a difficult position, in how to determine a beneficial incentive system versus a detrimental one.

As in any strong program design, summer programs should direct incentives at those who need it most. Driven, intrinsically-motivated readers won't need much external impetus to read during the summer. But how do you target students who are not naturally inclined to read for pleasure. Guryan et. al (2014) found that incentives were most effective with readers who were already above the baseline in terms of reading motivation (15). On one hand, any increase in reading motivation thanks to program incentives is a victory for libraries. On the other hand, this

study suggests that, by motivating the already-highly motivated students to a greater degree than the less motivated ones, incentives are only widening the gap between strong and weak readers. As Guryan et al. claim, "Economic theory suggests that for incentives to help children make more optimal educational investments, they should change the behavior of those who are least likely to make investments with long term benefits on their own…We find that, if anything, more motivated readers are more responsive to incentives to read, suggesting [incentives] may not effectively target the students whose behavior they are intended to change" (18). Once again, libraries are confronted with a difficult choice: if motivation is in fact correlated with baseline reading ability, then is it productive to incentivize motivated readers to increase their reading habits at the expense of widening the achievement gap?

Wealth Inequality and Summer Setback

Even if libraries avoid incentives altogether, the achievement gap is largely the result of an unavoidable force: wealth inequality. Nearly all students suffer some form of summer setback, but the loss has been found to be immensely larger for students of lower socioeconomic status. On top of the achievement gap that already exists between students of high and low socioeconomic background, summer vacations further distance students based on wealth (Heyns 1978, 180). After all, time spent reading or learning over the summer is time that can't be spent working and helping to support the family. Summer classes and tutors can only help the students who can afford them. Public schooling then, in a sense, plays a "compensatory role," (Alexander at al. 2007, 168), partially offsetting the achievement gap caused by the summer — but only partially. In an eight-year study, Alexander, Entwisle, and Olson (2007) tracked the academic progress of students in Baltimore from first grade to ninth. The impact of socioeconomic status, particularly in the summer, is staggering. The study found that in first grade, there was a moderate 26.48 average point difference between high and low socioeconomic status (294.47 compared to 271.99). But by ninth grade, the differential had increased to 73.16 points (170). Sadly, this is neither surprising nor ground-breaking, as the effect of socioeconomic status on academic achievement has been well-documented. What is stunning is what the study reveals about summer setback. In the five summer vacations during elementary school, high SES students gained an average of 46.58 points on test scores during the summer. Low SES students, on the other hand, *decreased* scores by 1.9 points — a 48.48 point difference in summer gains

between high and low SES (170). Alexander et. al go on to argue that these differences in elementary school have significant long-term effects. Lower test scores entering high school lead to worse performance *in* high school, which in turn leads to higher high school drop-out rates, lower college attendance rates, and so on. Low SES students are far less likely to take a college preparatory track in high school (13% versus 62%), partly because college has too high a price tag anyway, and partly because their test scores are too low when placements are made (175). Therefore, even if public high schools provide a mitigating influence, it's often too late — it is not enough to overcome the massive gap created in elementary school, especially over the summer.

Moreover, the income effect on summer setback appears to hit reading comprehension and language achievement hardest. Heyns wrote, "The single summer activity that is most strongly and consistently related to summer learning is reading" (161). Summer setback seems most apparent in reading, and several studies have linked income with those reading losses. Cooper et. al (1996) found that math scores appear to decline consistently across the board over the summer, regardless of socioeconomic status. In reading scores, however, middle-class students showed nonsignificant growth while lower-income students showed significant loss. On average, summer vacations created the equivalent of a *three-month* gap between middle- and lower-class students (261). Cooper et. al hypothesized that whereas in math, where families are "equally deficient in opportunities to practice and learn" (262) regardless of income, reading opportunities are directly tied to socioeconomic status.

Access to books and other reading materials, as well as language development programs, is often far scarcer for disadvantaged households. In a 2005 study comparing six California counties of varying wealth, public libraries were the only place where there was no significant difference in available books based on SES. In low SES homes, there was an average of six books, compared to over 400 in high SES areas. Schools in low SES counties housed, on average, about 1,714 books. High SES schools averaged over 11,000 (Constantino 2007, 25). In a study by Roland G. Fryer Jr. and Steven D. Levitt (2004), the authors used a sample of over 20,000 kindergarteners, assigning a composite SES measure to the four primary races in the sample: white, black, Hispanic, and Asian. Of the two races with a positive SES composite, white households on average housed 93 books, while Asian households owned 50 books. The two races with negative SES composites, black and Hispanic, owned an average of 39 and 40

books respectively per household (450). There is a clear correlation between household socioeconomic status and access to reading materials. But as mentioned before, libraries appear to be the one place that provides relatively equal quantities of books, regardless of wealth — and that's why encouraging impoverished students to visit the library and participate in summer programming is so vital.

In response to these troubling disparities in access to books, some researchers have proposed a new strategy: if you cannot get low-SES students to the library, bring the library to them. In a study by Allington et al. (2010), students from low-SES schools were supplied with 12 self-selected books on the final day of school to read over the summer, while other students weren't supplied with books — they were, of course, still free to read over the summer, but as we know, that's a significantly more challenging task when books aren't directly supplied. By the end of three years, there was a statistically significant difference on reading achievement exams between the treatment and control group, and an even larger difference comparing the lowest income families (those who qualified for free lunches) between groups (421). In a similar study involving "voluntary summer reading intervention" (i.e., providing books to students to read over the summer voluntarily), the largest improvements in test scores were concentrated among black and Latino students, as well as children who reported having fewer than 50 books in their home (Kim 2006, 348). Together, these studies highlight two parallel issues: the need to foster summer reading, and the significantly detrimental toll of not having access to books outside of the classroom. These studies provide evidence that supplying easy access to summer reading material does in fact reduce — and in some cases, reverse — summer setback, especially for children in low-SES households.

Of course, it's not currently feasible to deliver summer reading materials to every low-SES household. Summer reading programs at libraries serve as the next-best option. By encouraging young students to read over summer vacation, libraries help offset the potentially long-term effects of summer setback. By getting students into the physical library space, libraries provide access to reading materials to students who may otherwise struggle to find it. By offering rewards to students for reaching certain reading milestones, libraries incentivize meaningful summer reading — but they also may be erasing the intrinsic value of reading. Altogether, these purposes form the basis of what I will investigate in Connecticut libraries. Amidst a growing number of other forms of media and entertainment, how do libraries incentivize summer

reading? How do libraries choose incentives that promote and reward reading achievement, without shifting the focus to the reward rather than the reading itself? And how do summer reading programs compare in towns of differing wealth — specifically, how are libraries in low-SES areas promoting reading among the students who need it most? These are the questions that I seek to answer in the remainder of the paper.

Quantitative Results: Background Information

For the purposes of the study, I contacted 18 public libraries in Connecticut. The libraries were chosen to comprise a diverse portfolio of the state, selecting towns of varying geography, wealth and size. As of the 2010 U.S. Census, Connecticut was the wealthiest state in the United States by per capita income. However, Connecticut also had the third-highest Gini coefficient, the most common economic measure of income inequality, in the United States, trailing only New York and Louisiana in income disparity (U.S. Census Bureau 2010). Therefore, I was interested in targeting the wealthiest towns in the state (most of which are concentrated in Fairfield County), as well as some of the poorest urban areas, such as Bridgeport and New Haven, and a sample of towns in the middle. Of the 18 libraries to whom I reached out, 13 provided a response of some kind, whether quantitative data, qualitative feedback or both, for a response rate of 72% — perhaps higher than would be anticipated. This high response rate alone, along with several comments from librarians expressing their eagerness to see the state-wide results, shows that libraries are more than willing to help with further research, and are constantly looking for ways to improve their programs and benefit from collaboration. The 13 libraries included in the study are listed in Table 1 below, sorted by median household income according to the 2010 Census.

Table 1: Basic Town Income Data

Town Rank[1]	Town Name	County	Population[2]	Per Capita Income	Median Household Income
2	Darien	Fairfield	20,732	$105,846	$208,848
3	Westport	Fairfield	26,391	$97,395	$181,360
6	Ridgefield	Fairfield	24,638	$75,634	$151,399
11	Greenwich	Fairfield	61,171	$90,087	$128,153
15	Fairfield	Fairfield	59,404	$60,155	$122,306
32	New Fairfield	Fairfield	13,881	$39,486	$101,067
37	West Hartford	Hartford	63,268	$53,534	$98,530
96	Norwalk	Fairfield	85,603	$43,303	$76,161
121	Bloomfield	Hartford	20,486	$39,738	$68,372
172	Waterbury	New Haven	110,366	$21,545	$40,254
173	Windham[3]	Windham	25,268	$20,272	$40,063
174	New Britain	Hartford	73,206	$21,056	$39,706
176	New Haven	New Haven	129,779	$21,789	$38,963
-	Connecticut	-	3,574,097	$36,775	$67,740
-	United States	-	308,745,538	$27,334	$51,914

[1]Town Rank is relative to other CT towns by median household income, of 177 towns.
[2]Population and income data pulled from 2010 U.S. Census.
[3]Windham includes the census-designated place of Willimantic, where the public library is located. In future references, "Willimantic" will be used.

Fortunately, the five libraries that did not respond were relatively equally distributed by wealth, meaning the final list of participating towns is a strong, albeit relatively small, representative sample of the state. Five libraries from the top-15 wealthiest towns in Connecticut are included, as well as four from the poorest seven towns. For the sake of my analysis, I divided the participating libraries into thirds based on income, represented in Table 1 by the heavier borders. Although the thirds are somewhat of an imperfect division, such as the $86,000 difference between Darien and Fairfield in median household income despite being included in the same third, the division will be necessary for later analysis. The upper and middle thirds are divided mostly due to the wide difference in town rank and per capita income between Fairfield and New Fairfield. The middle and bottom third are separated using the state-wide and national averages for median household income and per capita, with the middle third all above those averages and the bottom third below.

Of the 13 respondents, 10 libraries provided multiple years of quantitative data that will be included in the subsequent analysis. Willimantic, West Hartford, and Fairfield all provided information that will be referred to in some context in the paper, but for various reasons, could not access or provide year-over-year data necessary for data analysis. In my correspondences with libraries, I primarily requested two things. First, yearly quantitative data of whatever records the library keeps on its summer reading programs, especially number of participants and whatever metric the library uses to measure reading achievement, whether books read, minutes spent reading, or number of goals reached. Second, I asked for qualitative insights from the planning and administrative side: the incentive design in place (including what kinds of rewards are offered), the evolution of the program over time due to the changing digital landscape, and what librarians view as the goal or purpose of the program.

Quantitative Results: Total Participants

Table 2a: Total Summer Reading Participants

Town	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Darien					1141	1113	1170	941	988	1033
Westport	1824	1687	1512	1434	1128	1074	1105	868	375	519
Ridgefield	1345	1553	1477	1662	1570	1709	1589	1347	1251	1184
Greenwich			568	1183	1008	1223	1145	1390	1413	1684
New Fairfield							465	395	298	370
Norwalk						994	1505	1584	1948	1480
Bloomfield								307	291	290
Waterbury						1222	1631	1201	1152	1074
New Britain				515	479	543	426	511	429	542
New Haven								658	679	925
Total	3169	3240	3557	4794	5326	7878	9036	9202	8824	9101
Avg per library	1584.5	1620.0	1185.7	1198.5	1065.2	1125.4	1129.5	920.2	882.4	910.1

Table 2a shows the total participants in summer reading programs in 10 Connecticut towns over the last decade. Due to inconsistent record-keeping and shifts to and from print and digital formats, libraries have varying degrees of statistics to pull from, but all 10 have data from at least the past three summers. Some further notes on these participation figures:

    a) The participant numbers should be considered fairly comprehensive of all students in that town who participated in a formal summer reading program. In towns such as Greenwich,

in which the public library has multiple branches, all branches were included. No town
included has multiple independent public libraries.

b) Whenever possible, "participants" was used instead of "registrants." Although not all
libraries track this distinction, "participants" refer to students who read and logged at
least one book, while "registrants" includes students who signed up but did not log any
reading. For the sake of the study, students who actively participated in the program is a
more useful figure than those who simply signed up.

c) Libraries conduct summer programming for several age groups at once, and typically do
break down participation by age. When possible, these figures only include children and
young adults, or roughly pre-kindergarten through 12th grade. I've excluded "read-to-
me" level children, given that these numbers are more about parent participation than
children, as well as any adult programming — but it's nonetheless worth noting that
many libraries are expanding their summer reading programs, especially at the adult
level.

On a per-library basis, we can compare participation over the last three years to see which
libraries seen the largest growth (or decline) in recent years:

Table 2b: 3-Year Percent Change in Participation by Town

| Town	2017	2018	2019	%Δ 2017-19
Darien	941	988	1033	9.78
Westport	868	375	519	-40.21
Ridgefield	1347	1251	1184	-12.10
Greenwich	1390	1413	1684	21.15
New Fairfield	395	298	370	-6.33
Norwalk	1584	1948	1480	-6.57
Bloomfield	307	291	290	-5.54
Waterbury	1201	1152	1074	-10.57
New Britain	511	429	542	6.07
New Haven	658	679	925	40.58
Total	9202	8824	9101	-1.10

Overall participation has remained relatively constant, decreasing by just 1.1% over the last three
summers. Westport has experienced the largest drop-off of over 40%, but as will be discussed

later, this is likely in large part due to library renovations. Waterbury and Ridgefield have seen substantial decreases. Darien has seen steady increases each year, while New Haven has experienced remarkable growth in the three-year span, perhaps a result of its new program design, which will be discussed in detail later.

The average participants per library shows a gradual downward trend, but this isn't an entirely revealing or meaningful metric, given that libraries with smaller baseline participation numbers are introduced later in the sample. In addition, I wanted to control for population differences between towns. The towns were purposely chosen to be a wide variety of population sizes, so comparing total number of participants between a town that is five times as large as another could be misleading. I assume that while town populations differ, the proportion of children and young adults do not differ to a significant degree. A quick check of Census data shows that the percentage of population under 18 remains relatively constant across the state – Westport, 27.7%; Norwalk, 20.4%; New Haven, 22.7% (U.S. Census Bureau 2010). Therefore, accounting for population differences between towns, I determined summer reading participants per 10,000 town inhabitants, as seen in the Table 2c and Figure 1 below:

Table 2c: Participants per 10,000 people

Town	Population	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Darien	20,732					550.36	536.85	564.34	453.89	476.56	498.26
Westport	26,391	691.14	639.23	572.92	543.37	427.42	406.96	418.70	328.90	142.09	196.66
Ridgefield	24,638	545.90	630.33	599.48	674.57	637.23	693.64	644.94	546.72	507.75	480.56
Greenwich	61,171			92.85	193.39	164.78	199.93	187.18	227.23	230.99	275.29
New Fairfield	13,881							334.99	284.56	214.68	266.55
Norwalk	85,603						116.12	175.81	185.04	227.56	172.89
Bloomfield	20,486								149.86	142.05	141.56
Waterbury	110,366						110.72	147.78	108.82	104.38	97.31
New Britain	73,206				70.35	65.43	74.17	58.19	69.80	58.60	74.04
New Haven	129,779								50.70	52.32	71.28
Average	56,625.3	618.5	634.8	421.8	370.4	369.0	305.5	316.5	240.6	215.7	227.4
Median	**43781.00**	**618.52**	**634.78**	**572.92**	**368.38**	**427.42**	**199.93**	**261.09**	**206.14**	**178.39**	**184.77**

Figure 1: Median Number of Participants
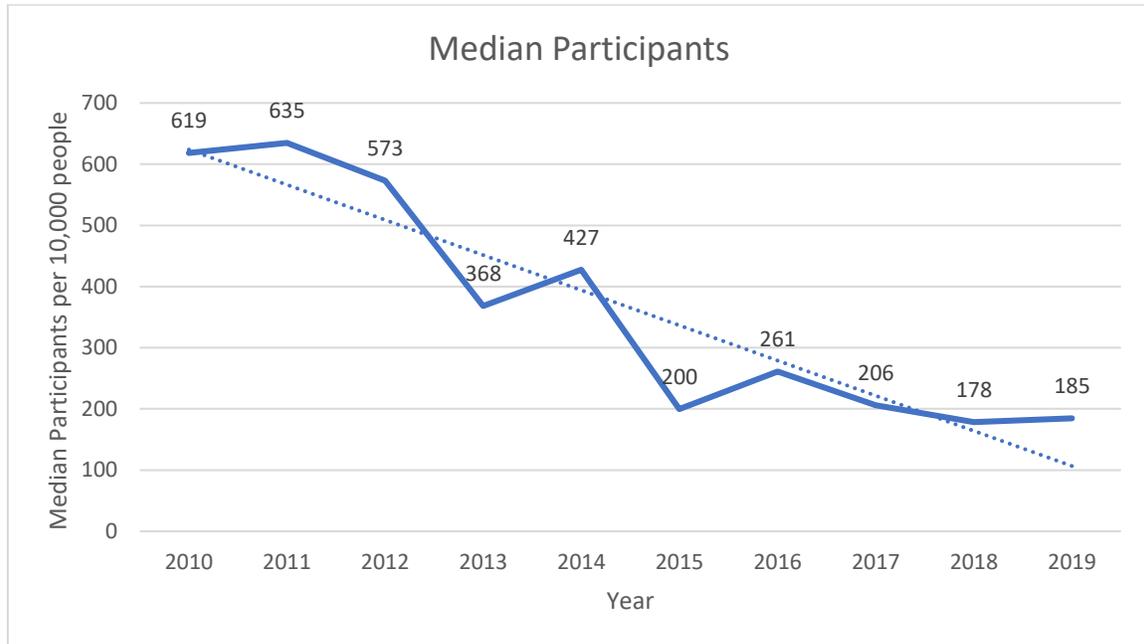
As evident, after accounting for population, libraries have seen a steady and significant decline in summer reading participation over time. Of course, the first half of the sample includes primarily only towns in the 'upper third,' skewing the early years upward, but even comparing the last four years, which includes eight of the 10 libraries, the participation numbers have fallen dramatically. From 2016 to 2019, the median number of participants fell from 261.09 to 184.77, a 29.2% decrease. Although the decline has relatively flattened from the freefall in the first half of the decade, it's concerning to see the median decrease in three of the last four years. It's also fair to wonder how the median has fallen so low in the first place. In Connecticut, the Census estimates that 20.6% of the population is under the age of 18 (U.S. Census Bureau 2010). My study is interested in children aged roughly from 5 to 18, or, assuming equal distribution, 72.2% of that 20.6%, or 14.9%. In other words, if every student in the age threshold of summer reading participated, about 15% of the town's population would participate. Instead, 185 out of a median 43,781 is a mere 0.4%. Using the same calculations, that's on average just 2.7% of the eligible population. Now of course, it's unrealistic to expect anywhere near 100% of the eligible population to participate for a multitude of reasons. However, less than 3% is worrisome for public libraries.

If there is a silver lining in this data, it's that the 2019 numbers rebounded, albeit only slightly, from 2018, the first overall increase in participation since 2016. Six of the 10 libraries increased participation in 2019 compared to the year before, and several (particularly New Haven, Westport, and New Britain) saw significant jumps after hitting record lows in 2018. These encouraging increases perhaps suggest that libraries are beginning to successfully adapt to the interests of children and parents, or simply that 2018 was a difficult year across the board. It will be highly interesting to review 2020 figures to see whether the positive trend continues.

Brief Aside: How to Measure Reading?

In addition to total participants, I also asked libraries to provide data on reading achievement. Libraries differ on how they track and measure how much reading a student does, but nearly all programs offer incentives based on increasing amounts of quantified reading. Of course, how exactly to quantify reading is an ongoing discussion, including whether it's necessary at all. As will be discussed later, Westport, for example, is the sole library on the list that offers rewards based on participation only, with absolutely no form of rewards based on increasing reading levels. Unfortunately, perhaps due in part to these shifting views on quantifying reading, reading total data was not as readily available as participation figures. Most libraries track reading in one of two ways; either by total books read, or minutes spent reading. Inevitably, both forms require self-reporting and therefore are subject to inaccuracy. But which is a more accurate and fair way to track reading achievement — and does it matter? For instance, while books read is easier for a student to track, a 30-page picture book does not require the same time commitment or effort as a 500-page classic novel, yet many libraries would count them as the same. But, if read at the appropriate age level, perhaps they do provide the same value from an educational standpoint.

Libraries are therefore split on how they measure reading quantity. Greenwich, which uses one program for students Pre-K through Grade 6, said that they use minutes read so that the pre-set milestones can be met by anyone, regardless of reading level. Other programs use different measures for children and teens/adults. For instance, Bloomfield tracks books read for children and hours read for teens, while New Fairfield does the reverse. In these cases, it seems that libraries aren't particularly concerned with which age group uses which measurement, but rather that reading is quantified in different forms at different reading levels. But that raises

another dilemma: how do you compare books read and minutes of reading? In the case of New Fairfield for example, the two age groups are competing for the same pool of incentives, but track different measurements. New Fairfield, which uses a raffle system, has set one book (read by a teen) equal to one hour of reading (by a child), each yielding one raffle ticket.

Whether these measurements are truly equal — it would certainly take longer than an hour to read many adult novels, while many children's novels could be read in a much shorter span — is mostly irrelevant. Since their raffle entries are put towards the same pool of prizes, children and teens are, in a sense, competing against each other. However, New Fairfield's selection of prizes appears to be carefully chosen to appeal to a wide audience, and therefore children and teens are rarely vying for the same prizes. A doll set was one of the most highly desired prizes for children, but received very few raffle entries from teens. A gift card to Olive Garden was hugely popular among teens but barely piqued the children's interest. In reality, it's nearly impossible to find a unit of measurement that can perfectly and equally represent reading achievement, especially across years of age difference. Even totaling pages read, which has been used by several libraries as a middle ground, likely gives an unfair advantage to older, more advanced readers with longer novels at their reading level. In all of this, it seems New Fairfield has found a unique way of addressing this issue: quantify reading in different ways, but offer incentives that avoid pitting readers of different reading levels against each other. As long as readers are 'competing' only against readers of comparable level, how reading is tracked is mostly inconsequential.

Quantitative Results: Reading Totals

The resulting issue with these ongoing debates on how to quantify summer reading achievement is that library records are sporadic and difficult to compare. Most libraries that I contacted have only begun keeping thorough records of books or minutes read in the last three or four years, while others such as Westport have moved away from tracking those figures altogether.

Table 3a: Total Books Read

Town	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Darien								704	2574	2508
Westport[1]	14795	15648	13055	11300	13247	12790	8949			
Ridgefield	39467	48490	51113	50606	49116	52723	48205	35399	12004	12731
Greenwich										
New Fairfield							5106	5202	4355	3774
Norwalk						15843	19575	15961	22458	17338
Bloomfield								3517	4458	2707
Waterbury										
New Britain										
New Haven										

[1]Westport stopped tracking books read after 2017. Incentives were awarded by participation only.
*Note that empty cells do not necessarily mean the library did not keep records from those years, but rather that the data was not provided for the study.

Table 3b: Total Minutes Read

Town	2015	2016	2017	2018	2019
Darien					
Westport					
Ridgefield				885117	1010342
Greenwich					
New Fairfield[1]		163260	169080	138780	134940
Norwalk					
Bloomfield			150805	168467	161276
Waterbury[2]	87240	37896			
New Britain					
New Haven			555993	356940	517020

[1]New Fairfield tracks hours, converted to minutes.
[2]Waterbury includes only online registrants.

Given that tracking minutes read is a relatively new development, it's unsurprising that records weren't available beyond the last five years, even from the most thorough record-keeping libraries. With books read, I attempted to normalize the figures in a similar method to the participation totals. Rather than divide by town population numbers, I used the data from Table 2a, dividing books read by that year's total participants, thereby finding books read per registered participant.

Table 3c: Books Read per Participant

Town	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Darien[1]								11.00	11.00	11.00
Westport	8.11	9.28	8.63	7.88	11.74	11.91	8.10			
Ridgefield	29.34	31.22	34.61	30.45	31.28	30.85	30.34	26.28	9.60	10.75
Greenwich										
New Fairfield							10.98	13.17	14.61	10.20
Norwalk						15.94	13.01	10.08	11.53	11.71
Bloomfield								11.46	15.32	9.33
Waterbury										
New Britain										
New Haven										
Median	**18.73**	**20.25**	**21.62**	**19.16**	**21.51**	**15.94**	**11.99**	**11.46**	**11.53**	**10.75**

[1]Darien only records books on completed programs, which require 11 books read in addition to other tasks. Therefore, books read was divided only by completed programs, not overall participants.

Figure 2: Books Read per Participant

Median Books per Participant
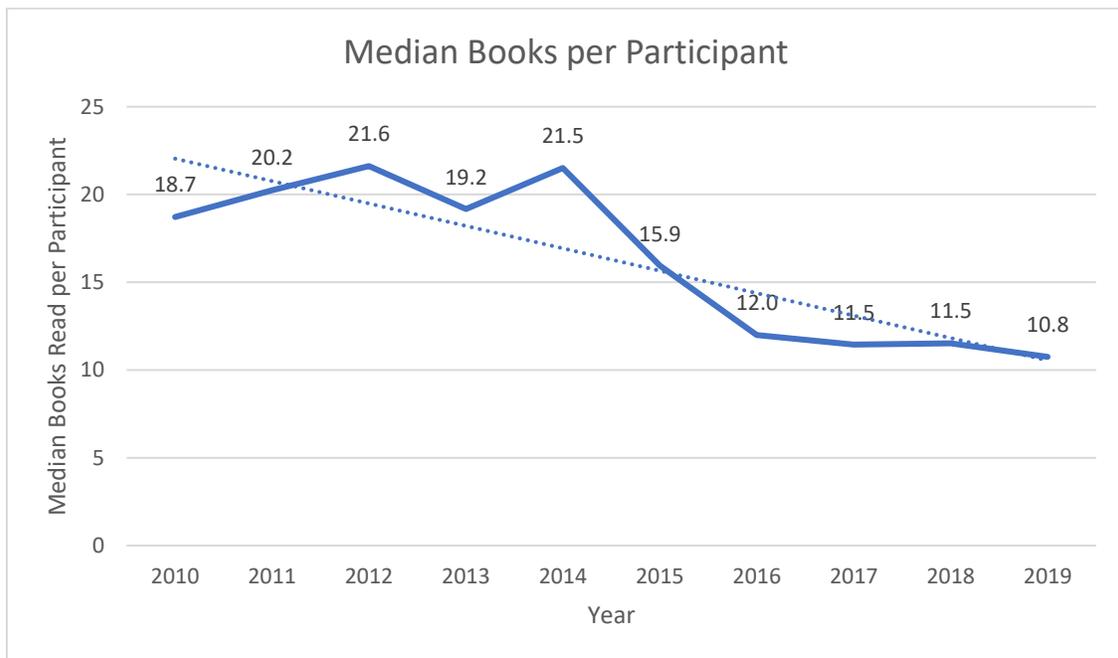
Books read per participant, like participation numbers overall, has seen a gradual decline over time, though it is important to note that pre-2015 data refers to just two towns. In the last four years, it seems most towns have equalized at about 10 books per participant, with a slight downward trend during that span. There are two quite eye-opening results in the data. First, a note on Darien's numbers. As mentioned in the notes of Table 3c, Darien only tracks completed programs turned in, meaning the listed books read total significantly underestimates the actual books completed. What is interesting to note is that in 2017, the first year in which Darien introduced its current format (which is discussed in detail later), only 7% of participants completed their programs. In the last two years, 24% and 22% have completed, respectively. That significant increase suggests that the new program design does seem to have increased reading since its inaugural year. It's also fair to wonder what figure libraries should aim for when it comes to 'completing' a summer reading challenge — it has to be challenging enough to not be reached universally, but also should be attainable to incentivize all readers to shoot for completion. If a fifth of participants is an ideal figure, then Darien has discovered a winning formula.

Second, it's curious how Ridgefield sustained such an extremely high books per reader average over time, but seems to have fallen to the norm in recent years. This is of course where it would be highly interesting to see other libraries' records from farther back than the last few years. Perhaps a decade ago, 30 books per reader was in fact the norm, and now, with busier summers and alternate forms of entertainment, participants are reading less. After all, Ridgefield's participation numbers haven't fallen drastically, but the total books read is about a third of what it used to be. Westport's statistics suggest that the 10 books per reader average has remained constant, but it's impossible to know which library provides the better representative sample. At least conceptually, it certainly seems possible that books read per participant has decreased over time, given an increasing array of media competing with reading for children's summer free time.

Up to this point, I've analyzed data on a town-by-town basis. Town wealth is outside of a library's control but program design, with which libraries are actively grappling, is determined by library staff. From here, I will group the libraries using those two measures — town wealth and program incentives — to determine if there is any link between participation and those factors.

Summer Reading Participation by Wealth

As aforementioned, for the sake of my analysis, I divided the participating libraries into three groups, based on median household income of the town. The groups are as follows:

Upper Third	Darien	Greenwich
	Westport	Fairfield
	Ridgefield	
Middle Third	New Fairfield	Norwalk
	West Hartford	Bloomfield
Lower Third	Waterbury	New Britain
	Willimantic	New Haven

Returning to the participation figures, I was interested in whether there was any correlation between wealth and participation, both in terms of overall totals and trends over time. Do wealthier towns typically have higher number of registrants? Has the 'lower third' seen a sharper decline than the 'upper third?' To address these questions, I used the participants per 10,000 people figures found in Table 2c, and found yearly averages for each of the thirds. The results were quite intriguing, though far from conclusive:

Table 4a: Median Participants by Thirds

Town	2016	2017	2018	2019
Darien	564.34	453.89	476.56	498.26
Westport	418.70	328.90	142.09	196.66
Ridgefield	644.94	546.72	507.75	480.56
Greenwich	187.18	227.23	230.99	275.29
Median	**491.52**	**391.39**	**353.77**	**377.93**
New Fairfield	350.8393	302.5719	232.6922	279.5188
Norwalk	175.8116	185.0402	227.5621	172.8911
Bloomfield		149.8584	142.0482	141.5601
Median	**263.3254**	**185.0402**	**227.5621**	**172.8911**
Waterbury	147.781	108.8197	104.38	97.31258
New Britain	58.19195	69.80302	58.60175	74.03765
New Haven		50.70158	52.31971	71.27501
Median	**102.9865**	**69.80302**	**58.60175**	**74.03765**

Table 4b: Summary of Participants by Town Wealth

	2016	2017	2018	2019	%Change 2016-19
Upper	491.52	391.39	353.77	377.93	-23.11
Middle	263.33	185.04	227.56	172.89	-34.34
Lower	102.99	69.80	58.60	74.04	-28.11

Figure 3: Participants by Town Wealth
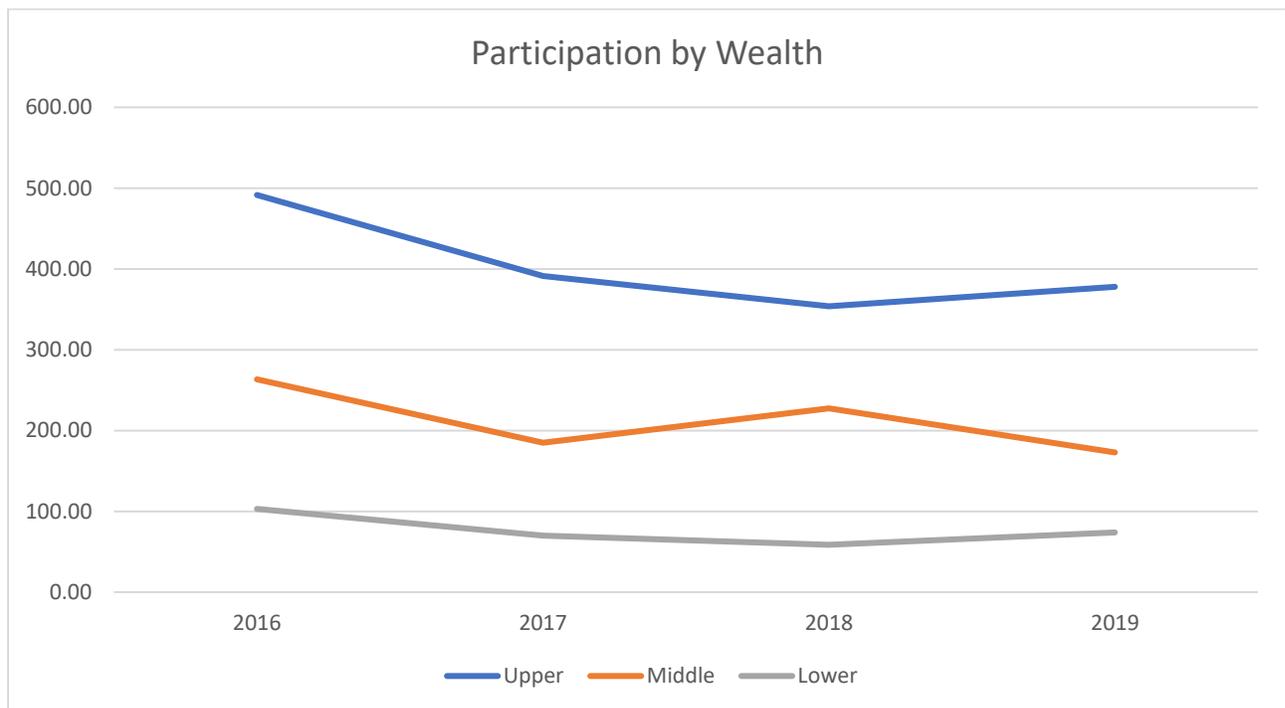
The data suggests that wealth does correlate with summer reading participation. Although all three groups have declined in the last four years, the upper third has by far maintained the most participants, followed by the middle, followed by the lower. In fact, the upper third's lowest year, 2018, is easily higher than even the strongest year of the other groups. Concerningly, all three groups have seen significant decreases in participation of at least 23% in a four-year span.

Interestingly, the middle third has seen the largest drop-off in participation, a near 35% decrease in 2019 from four years earlier. After an increase in 2018, the middle third experienced a sharp decline in participation in 2019 — while both the upper and lower thirds saw bounce-

back years. Yet context is important: even after participation falling 35% since 2016, the middle third remains significantly above the best year of the lower third.

Overall, it seems there is a strong correlation between a town's wealth and the success of its library's summer reading program. This isn't entirely surprising: libraries in wealthy towns typically (though not always) have larger budgets, nicer facilities, and often, more highly developed summer programs. It's also important to expand the scope beyond the library. As will be discussed in greater depth later, families in impoverished cities may not have the time or resources to participate in a formal summer reading program. Even if participation is cost-free financially, the opportunity cost of devoting time to reading books, tracking progress, and traveling to the library to redeem prizes may be much more significant on low-income families than on wealthy ones.

Summer Reading Participation by Program Design

In addition to grouping the libraries by wealth, I was also interested in comparing the program designs. How do libraries reward reading, without making the reward more of a focus than the reading itself? In my initial email to libraries, I asked library staff to comment on how they view their program's incentive system in the context of these ongoing debates. Those comments will mostly be saved for later, but for the sake of data analysis, I attempted to group libraries based on the type of incentives offered. This proved more difficult than anticipated — most programs are built on similar reward structures with slight differentiations. No two programs are identical, but there were not the clear dividing lines that I had hoped for. Ultimately, I arrived at the following four categories, with somewhat loose boundaries:

Type of Incentives	Libraries
Group A: Strictly direct rewards (no raffle, no token exchange)	Greenwich, Westport[1], Bloomfield
Group B: Direct rewards with raffle component	Ridgefield, New Haven, Willimantic, Darien
Group C: Strictly raffle or token exchange	New Fairfield, Waterbury, West Hartford
Group D: Badge/bead system (with raffle or direct prize component)	Norwalk, Fairfield, New Britain

[1]Westport incentives are earned through simply participating, not reading total.

The first distinction I made is whether the program offers what I'm calling "direct rewards," meaning reaching certain milestones translates directly to a tangible prize. About half of the programs included in the study use direct rewards. In the case of Greenwich, for instance, six hours of reading earns a drawstring bag, 12 hours earns a water bottle, and 18 hours earns binoculars and a book of choice. Within this broad category of direct rewards, I've distinguished between programs which have an additional ongoing raffle component. In New Haven, hours spent reading earns points, which are then directly redeemed for prizes, or put towards a raffle of free museum admission. These programs comprise Groups A and B; libraries using direct rewards, with or without a raffle component.

In other programs, tangible prizes are earned indirectly through the accumulation of tickets or tokens. In other words, reading for 10 hours does not directly earn a prize, but rather a raffle entry for a prize. In New Fairfield, for example, one hour of reading is rewarded with one raffle ticket, which can then be put towards a selection of prizes to be raffled off. This seems like an interesting answer to the concern of removing the intrinsic value of reading: by adding an extra layer between reading and prize, the prize is less of a focal point and more of a potential bonus. However, will readers be as motivated to read if a prize is not guaranteed at every milestone? This token exchange system is used by the three libraries in Group C.

Group D is perhaps the most experimental of the bunch. At all three of these libraries, while tangible prizes and raffles are currently offered as well, there is an emphasis on accumulating tokens of reading achievement, such as badges or beads. Imagine a Boy Scout badge system, but for reading. In New Britain's "read-a-bead" system, a bead is awarded for each day that a participant reads for at least 20 minutes. At registration, students are given a calendar to track the days they read, as well as a string and other decorations to ultimately form a necklace with their beads. Currently, New Britain also rewards reading with school supplies, ticket vouchers, and other direct prizes. But eventually, the vision is to ditch these incentives altogether and focus entirely on the bead system. In Norwalk, thousands of pins are made on-site. The more reading a participant does or the more challenges they complete, the more badges (pins) they earn, as well as raffle entries. This badge system seems to be another attempt to avoid turning reading into a bribe for prizes. The beads and pins are a way for children to boast and take pride in how much reading they've done, making reading itself the ultimate reward.

From a data analysis perspective, I was interested in whether there would be any significant differences between the four groups, understanding that there are many reasons to account for differences than simply the program design. Using the same procedure I used for the wealth groups, I found the median number of participants for each group for the last three years:

Table 5: Participation by Incentive Design

Incentive Type	2017	2018	2019
A: Strictly direct rewards (no raffle):	227.23	142.09	196.66
B: Direct rewards with raffle component:	453.89	476.56	480.56
C: Strictly raffle/token:	205.70	168.54	188.42
D: Badge/bead system (w/ raffle component):	127.42	143.08	123.46

Quantitatively, there is not much discernible difference between three of the four groups, either in terms of overall participation or change over time. Group B, however, is a clear outlier:

Figure 4: Participation by Program Design

Participation by Incentive Type
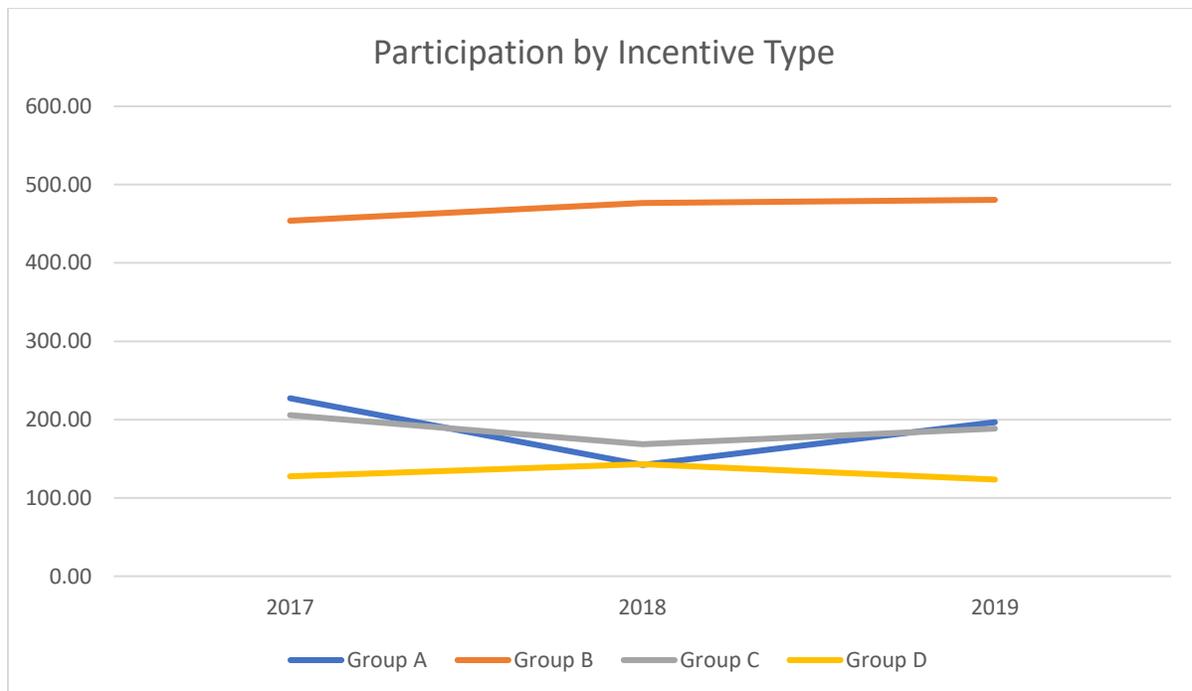
Not only is Group B's median about twice as large as the other three groups, but it is the only group whose median has increased each of the last two years. Of course, it's important to note that this result is far from conclusive, given the very small sample size. Of the three libraries in Group B that provided data (Willimantic did not), two are the two largest programs in the sample in Ridgefield and Darien — both of which also happen to be in the upper third of town wealth. In addition, we do not have the benefit of random allocation of groups that we would in an ideal economic study. In other words, libraries are selecting their own incentive designs based on a variety of factors, making it impossible to isolate solely town wealth. However, these results do provide an interesting basis for further studies with a larger sample: do libraries that offer both direct rewards and raffle entries — perhaps the two most attractive incentive systems from a child's perspective — attract a larger audience? Do more students register and participate if they're guaranteed tangible prizes? And if so, is that perhaps motivating reading at the expense of children devaluing the reading itself?

Qualitative Results: Background

In addition to providing hard data on past summer programs, I asked library staff to provide verbal insights into their respective programs, and into summer reading in general. While I had hoped that librarians would be willing to share their thoughts on these topics, I was not prepared for how thorough and thoughtful the responses would be. Special thanks to Lisa Story from Norwalk, Margaret Girgis of New Haven, Samantha Cardone of Darien, and the several others who took the time to write carefully thought-out descriptions of their programs and discussions of summer reading broadly. With this detailed feedback available, I felt it was equally important to the project as the quantitative results — numbers can only tell some of the story, especially given a relatively small sample size.

Throughout the email correspondences, four topics in particular repeatedly appeared, to which I've dedicated a discussion of each in the following pages: the enduring relevance of the physical library space, the ongoing divide between print and digital mediums, the constantly shifting goals of summer programs, and an increasing emphasis on summer *learning* expanding beyond the realms of simply reading.

The Enduring Relevance of the Physical Library Space

As the literary world moves increasingly into digital territory, it may seem like a logical conclusion that the physical library is nearing obsolescence. Yet despite the growing online presence of library databases, it's clear that the physical library space still very much matters. In Westport, the library has been under construction during each of the last two summers, operating in a significantly more confined space than usual. Uncoincidentally, participation in both summer programs and at library events in that time has seen a substantial drop-off — about one-third of a typical year. When construction finishes, it will not be surprising to see not just a return to participation numbers of three years ago, but rather an even high figure. Look at Ridgefield: after finishing a complete overhaul in 2014, that summer saw the highest number of summer reading participants the library has ever had on record. Library renovations not only improve the space for staff and visitors but can help to re-spark a community's interest and dedication to the library. These towns provide just two recent examples that private donors remain more than willing to make investments into a town's library. Through programming and events, public libraries remain a strong facilitator of a town's sense of community, and therefore the physical library space has endured despite the increasing shift to digital media.

It's clear that one point of emphasis of many programs is to encourage or require summer reading participants to visit the library in person, building a personal connection with the library and its staff. As will be discussed later, the goal of many programs is to create lifelong readers — for which familiarizing a child with the library and the people who work there is a great foundation. Westport, which has just made a large investment into the physical space, is fittingly one of the programs which most strongly emphasizes in-person library visits. During the program, they host an eight-week scavenger hunt in the library, searching for answers to literary questions. Correct answers earn 'library money,' which can then be redeemed at the library gift shop. While this concept is of course not replicable at every library, it's an intriguing take on getting children not just to the library for a brief visit but also interacting and exploring, and then the rewards go right back towards library-themed items.

Like scavenger hunts and library gift shops, many program incentives also emphasize not just visiting the library but creating an engaging experience. Several libraries offer adding a child's photo to a mural after reaching a certain milestone, further making the participant feel included in the greater library community. For every five books read, Westport allows children

to add a paper chain link to a growing chain with the goal of stretching all around the library —
fostering the same sense of community-building, with the added element of contributing progress
to a collective goal. Numerous libraries, including Willimantic and Bloomfield, offer a 'treasure
chest' of small prizes or a 'spin the wheel' final prize, both of which require participants to visit
the library and offer the additional agency of playing a part in what prize they receive. In all of
these directives and prizes, despite increasing digitalization, the physical library space remains at
the heart of programming and the community at large.

The Ongoing Divide Between Print and Digital Mediums

When I participated in a summer reading program, it was done entirely in print — a
running list of my completed books read would be kept at the library, and I would visit the
library regularly to update the list. Entering this project, I anticipated that this print record-
keeping would be entirely a thing of the past. I was wrong. About half of the libraries included in
the study still track reading on paper in some capacity, whether exclusively or in addition to
online. In fact, several of the libraries have switched *back* to print-only after experimenting with
digital programs. A fascinating dichotomy has emerged: while some libraries have embraced
online logging and registration in recent years, other libraries have abandoned it altogether in
favor of old-fashioned, print logs.

Three libraries — New Haven, New Britain, and Willimantic — have returned to paper-
only after unsuccessful attempts to move the program online. Five years ago, Willimantic
switched to an entirely online program, and participation dropped. They then experimented with
print and online options side-by-side for two summers, and participation rebounded. In the last
two summers, Willimantic has returned to print-only, with the highest participation totals in that
five-year span. Unfortunately, I was not supplied with the data to support this, but it's not a
unique story. New Britain ended paper records in 2013, using an online-only program from 2014
to 2018. Although they switched software offerings in 2018, the online format simply wasn't
working. Library patrons gave generally positive feedback on the digital format, mostly for the
convenience of being able to track records from home, but on the library's end, the online
software was simply inadequate. Wandoo Reader, the software used in 2018, only tracked
minutes read, but New Britain (among other libraries) was more concerned with how many days
students were hitting the recommended 20-minutes-of-reading mark. In addition, the library felt

a little uneasy about the accuracy of online tracking from home — with in-person, paper logging, librarians could chat with students and ensure that the reading had been absorbed. So, like Willimantic had done one year earlier, New Britain returned to paper logs in 2019, and plan to do the same moving forward. As Amy Litke, Manager of Children's Services at New Britain Public Library, poetically put it, "We see the evolution of the program as taking us back where we started, tracking the information by hand."

New Britain was far from the only library that noted some complaints with the available summer reading online software. In Norwalk, online registration and logging began in 2015 and has been used since. While it has increased participation significantly at the middle school and high school levels (17 teens in 2014 compared to 257 in 2015), the software makes registration and logging books unnecessarily cumbersome. Norwalk library staff have talked with the vendor, but since the software is state-provided, the library simply can't afford the thousands of dollars to switch to a different vendor. New Haven echoed similar sentiments. Wandoo, the software also used in New Britain and others, was not "'bad' per se," but was insufficient for the library's purposes. Like Norwalk, New Haven staff said that the online onboarding process is complicated and intimidating, preventing participants from even getting started. So while Norwalk and a couple other libraries did mention some moderate increases in participation due to digital options, it seems libraries are almost universally dissatisfied with the current software options, namely Beanstack, Wandoo, and the state-provided READsquared. So the natural question is, is the larger issue with the basic idea of digitizing programs, or the software itself?

This would be a fascinating topic for another paper to address in full, but from the feedback provided, it seems that library patrons are still strongly invested in paper forms. Westport, the second-wealthiest town in the study, where you expect high access to technology, is remarkably old-fashioned: entirely print records, the paper chain link around the library, achievements rewarded by 'library money.' In Waterbury, which has offered both online and print for years, the ratio is still overwhelming in favor of print registrations, without any sign of that changing:

Waterbury Registrations, Print vs Online		
Year	Print	Online
2015	1081	141
2016	1245	386
2017	1126	75
2018	1097	55
2019	1002	72

Note the peak in online registrants in 2016 — how many of those likely switched back to print in the following years? And in West Hartford, where last summer was the first year going digital in any capacity, there were about three times as many paper participants as online:

West Hartford Participants, Print vs Online		
Grade	Print	Online
Kindergarten	95	112
1st	222	81
2nd	275	65
3rd	266	91
4th	290	57
5th	228	16
Books Logged:	18,536	6,237

Based on overall participation data, it seems that in West Hartford, as was echoed in Norwalk, the vast majority of teens are using online logging. But at the primary education level (with the exception of kindergarten, likely because parents are doing most of the work there), it seems students are still overwhelmingly choosing paper over digital.

Of course, it's impossible to talk about the digital divide without discussing the effect of wealth. It's likely not a coincidence that the three libraries that have tried and since abandoned online formats are all within the 'lower third' of our wealth analysis. Margaret Girgis, Young Minds & Family Learning Manager of the New Haven Free Public Library, shared a thoughtful discussion of why an online program failed at her library. On a practical level, Wandoo, at least

at the time, did not offer any non-English options, making it mostly inaccessible for diverse cities like New Haven. Many of New Haven's patrons also do not have internet access in their homes, removing the convenience factor that benefited families in other towns. On a deeper level, Girgis also shared her thoughts on what has been called the "middle-class bias" of online programs. The issue with online software that "rely heavily on patron-side engagement," according to some, is that "it assumes a level of leisure that many constituents simply do not have." In struggling households, in which adults are juggling multiple jobs and innumerable obligations, there simply isn't time to worry about another online tracking software. With paper records, much of the work and responsibility is shifted to the library. In New Haven, and likely in impoverished cities across the country, paper logs are simply easier for both patrons and library staff alike — "easier to create, distribute, manage, explain, and translate," according to Girgis.

As seen in the paper-based program in Westport, town wealth doesn't always directly correlate with the online and print divide, but it certainly affects how willing and able patrons are to engage with online software. It's apparent that a major obstacle is not just moving from print to online but also the software itself, which has reported to be unnecessarily difficult to use on the patron-facing end and insufficiently informative on the library's back end. Overall, it seems that print registration and logging likely isn't disappearing anytime soon, especially until it better suits the needs of library staff and participants.

The Constantly Shifting Goals of Summer Programs

Before discussing the purposes of summer reading programs, it's important to first realize the broader purposes of a public library. The "public library" is a relatively new invention, not really emerging in America until after the Civil War – before that, these collections were available only to the uber-wealthy and privileged (Koontz 76). And while these first free public libraries had genuinely philanthropic motives — to provide knowledge and education to those who previously did not have access — they also had very specific goals. For one, public libraries were closely tied to "Americanizing" recent immigrants to the country. Natasha Gerolami argued that public libraries largely functioned to "tame the mob" and produce a "normal and civilized" population (2) amidst the influx of immigrants into the country. By offering a catalog of books that portrayed an obedient, orderly society, with a uniform idea of "America" and its citizens,

libraries served as a means of assimilating foreigners. In a sense, public libraries operated like any business of the day: "librarians assessed the market for their services, responded to perceived needs," and most importantly, "tried to shape demand" (McCrossen 172). Public libraries weren't just reacting to the demands and ideals of their patrons — they were creating them.

It's also important to note that in their early days, public libraries were typically funded entirely by donations and private funds. Andrew Carnegie was famously the largest investor in public libraries, having funded nearly half of all public libraries in the U.S. by 1919 (Carnegie and Abell 244). His motives were primarily philanthropic, firmly believing that individual wealth should necessarily be distributed to public goods. But therefore, funding public libraries was also a means of personal expansion and acquisition of resources.

Today, public libraries are less concerned with assimilation or individual gain, especially as libraries have become publicly funded through local taxes. But they must still grapple with the same questions of purpose and, increasingly, questions of relevance. Though to a lesser degree, libraries are still 'demand shapers,' through national medals (such as the Newbury) and summer reading lists. Yet the funding and perceived importance of libraries has mirrored that of public higher education: once highly prioritized, and now increasingly diminished. State and local allocations to public libraries have decreased, as have budgets for university and school libraries — for the fourth consecutive year, President Trump has proposed permanently eliminating the Institute of Museum and Library Services, which would essentially end all federal funding to libraries (Brown 1). Meanwhile, the nationwide push to STEM over the humanities has further reduced the perceived importance of the public library.

With all of these concerns at the forefront, it seems library staff are fighting for the relevance and value of library programming more than ever. I was therefore highly interested in what librarians consider the primary goals and objectives of their summer reading programs, especially in terms of the discussion included in the literature review section of this paper. A number of studies have shown that summer reading programs are hugely beneficial for young students, particularly in low income areas, but library programming has seen general declines in participation and recognized relevance. What do program coordinators consider the purpose of their summer reading programs, and how are their respective programs designed to address these purposes?

First, it seems that libraries are well aware of the recent research on summer setback. Several library staff explicitly mentioned the need to combat the loss of learning that occurs over the summer, and the ability of summer reading programs to do just that. But in order to mediate summer slide, it seems libraries are consciously narrowing the focus beyond just reading as much as possible. Willimantic and New Britain have both adopted recording not simply total books or hours, but rather days in which students read for at least 20 minutes. Reading in this model is encouraged as a daily task, even if not for a particularly long period of time — framing reading in the same way that we generally think about physical exercise. The 20-minute model also seems to encourage students to participate all summer long, as opposed to reading a large chunk in a short period to reach the incentive requirements. Likewise, Deirdre Sullivan of Greenwich mentioned their focus in not just promoting initial registration, but also continued engagement throughout the summer. It's one thing to get students to sign up, it's another to set interesting and obtainable goals to keep participants involved from beginning to end.

On the topic of retention, library staff also repeatedly mentioned the goal of fostering an enduring love of reading that lasts beyond the limits of summer vacation. Lisa Story from Norwalk suggested that this is where the goals of libraries and schools diverge slightly: schools are mostly concerned with improving reading ability and often favor certain canonical texts. Although this may be valid from an educational standpoint, it can eliminate the enjoyment of reading. Libraries, on the other hand, should foster a love of reading, no matter the text's genre, level, or audience, to create life-long readers. Story said that in this way, the actual content that a student is reading is unimportant as long as it promotes interest: "whether it's graphic novels, the *Guinness Book of World Records*, or *Great Works of Literature*…they're perfectly valid forms of literature, and ideally she has fostered a love of reading that will stick with her into adulthood."

On a related note, Kris Nash of Westport noted that in her program, "we try to emphasize fun, rather than competition." This is an intriguing point: of all the libraries included in the study, Westport is the only library that awards prizes based simply on participation, regardless of reading total. In contrast, take New Fairfield's in-depth raffle system. Every week, a new assortment of prizes is available to be raffled off, valued at different amount of tickets needed to enter. On one level, this certainly would seem to incentivize more reading, in order to earn more entries, especially to the higher-value prizes. On the other hand, does this pit participants in unhealthy competition? As mentioned before, the prizes are selected to appeal to different age

groups, preventing teens competing against younger children — but this still puts children of similar age and interests in indirect competition. Is that a valid concern? Libraries seem to differ on this topic; either using friendly competition to incentivize reading, or consciously trying to avoid turning reading into an unhealthy competition.

Lastly, it seems libraries are increasingly concerned with expanding programs beyond solely reading achievement. Some library staff, including Amy Litke of New Britain, expressed a desire to improve interpersonal skills in addition to reading ability. As one of the libraries that has returned to print-only after trying online, New Britain incorporates conversations with librarians into the summer reading program — instead of simply having students fill out a digital log, they come in and chat with a librarian about what they read. Litke said the evolving goal of the program is "having more personal contact with the children and parents which allows us to stress the importance of reading every day, and to encourage and cheer their efforts." In doing so, New Britain rewards reading not just with physical prizes, but with verbal feedback and encouragement – something that also builds interpersonal skills in participants.

From an educational standpoint, libraries are going beyond reading in fascinating ways. As will be explored in depth in the final section, libraries are shifting the goals of the program to promote learning of social and cultural values in addition to literary achievement. Margaret Girgis of New Haven, whose program is perhaps the best example of this new form of experiential summer reading design, said that while preventing summer slide and creating lifelong readers is a point of emphasis, a major purpose of the program is getting participants active in the community. Darien, using a similar style, appears to be equally invested in putting students in varied learning environments beyond reading at home. These goals perhaps aren't so new or revolutionary after all, but rather coming full circle with the beginning of public libraries. Libraries have always been cultural centers of the community. But in the 19th century, they were curators of a relatively narrow view of American cultural. Now, libraries are focusing less on creating cultural canon and more on encouraging students to experience the variety of cultural artifacts in their communities, allowing students to determine what's valuable to them.

From Summer Reading to Summer Learning

A couple decades from now, summer reading programs may look completely different. In fact, they may no longer be called summer reading programs in the first place. Increasingly,

libraries appear to be moving away from promoting just reading, and moving towards a more well-rounded version of summer learning. From an education standpoint, summer vacation is a time when students can have learning experiences not possible in a classroom setting — visiting a museum, attending a lecture, participating in a library event — so why only promote reading; the kind of learning that can be done in any classroom and is already part of any class curriculum? Of course, especially given that reading comprehension skills are most affected by summer setback, several studies have shown that reading is perhaps the most important summer educational activity for students. But why stop there?

Many libraries are pushing students to engage with their reading on a deeper level than completing a book and recording the tally. While this isn't exactly a recent development, it seems more libraries are incentivizing this kind of deeper engagement. Norwalk, for example, tracks not only books read but also reading challenges completed, such as writing a book review, conducting a science experiment, illustrating a scene from a book, attending a library program, etc. Reading is still at the center of all the challenges, but in a more hands-on, creative fashion. These challenges are rewarded with a more valuable prize (in this case, a larger handmade pin) than hitting reading milestones, further incentivizing these added levels of reading engagement. As mentioned earlier, Westport's scavenger hunt around the library plays on a similar idea of not just absorbing what one is reading, but then turning it into a creative output. In the case of the scavenger hunt, problem-solving skills are taught alongside reading. These types of additional projects are certainly a harder sell for some students than simply reading a book and moving on — not all children are going to be truly excited about reviewing a book or writing an accompanying poem. But for those who are interested, the extra effort is rewarded, and the reading experience is enhanced.

In New Haven and Darien, these experiential activities aren't just supplements to reading — they're integral components of the program. In her response, New Haven's Margaret Girgis said, "We have moved away from the term 'Summer Reading' and instead focus on 'Summer Learning.' Our programs now make an active effort to encourage library and community engagement as part of the summer experience." It's not necessarily that the value of reading is diminished, but rather that being active in the community is equally weighted. The past two summers, New Haven has used a point system in which one point equates to either one hour of reading, or one library or community event attended. That includes plays, concerts, and visits to

local museums or parks. Girgis also noted the concern of making these activities, plus the actual reading, feel like a "bribe" to earn physical or monetary rewards. Therefore, the rewards are grounded in the same kind of community involvement: a gift card to an arts class, free admission to a museum, and free books. And, since this is children's programming and will therefore require parental participation as well, the program also builds stronger interfamily relations. On the topic of incentives, Girgis added, "Rather than offering a tangible object that a child may use then lose interest in, we care about focusing on the intangible aspects of experiences, learning, and, in our case, family." New Haven is fully invested in the wider goal of summer learning, and it'll be interesting to see if other libraries adopt similar designs.

I've already alluded to Darien's fascinating "map" format, which began three summers ago, one year prior to New Haven's. An example of the 2018 map is included below:
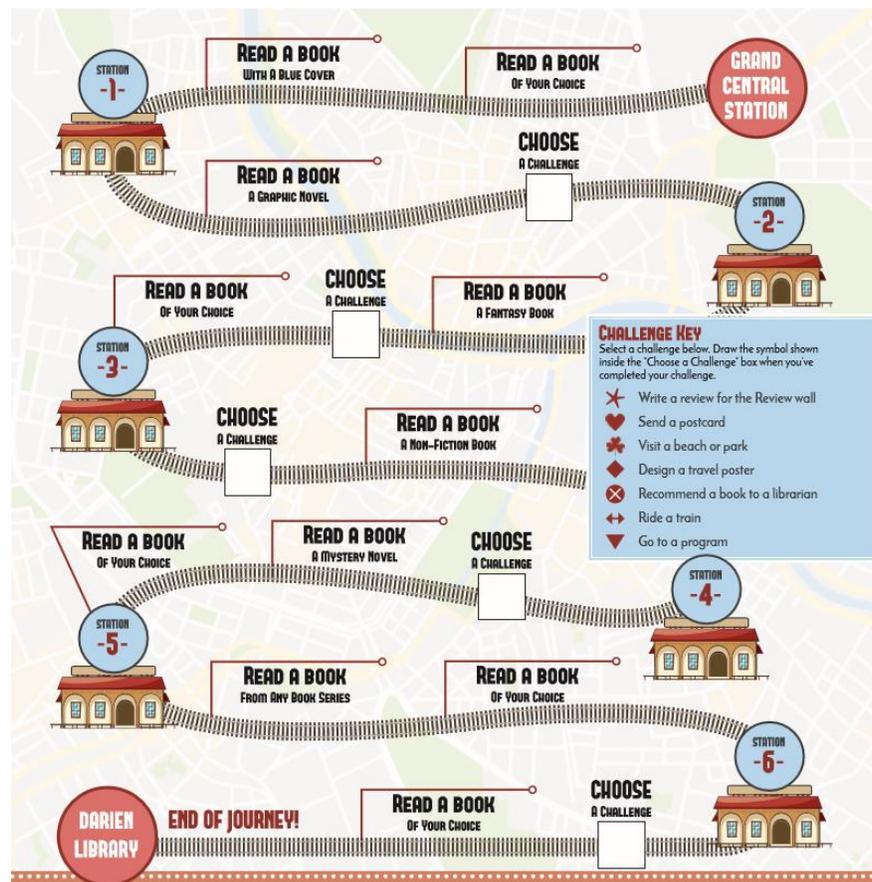
Credit: Darien Library.

Challenges along the way are either reading-based (encouraging different genres and series to push a reader outside their comfort zone) or experiential and community-based (sending

a postcard, visiting a museum, speaking with a librarian). Each 'station' reached is rewarded with increasingly appealing prizes from various 'treasure chests.' Completing the entire map earns a raffle ticket for a secret grand prize. In 2018, the map was accompanied by an ongoing 'mystery,' similar to Westport's scavenger hunt. At each station, readers earned clues in the form of brain teasers or riddles that, went put together, could be used to solve the mystery. Correctly solving the mystery earned an additional raffle entry, and the library found that more participants completed the map in 2018 with this added component. Like New Haven, the grand prize was also a learning experience, including a sleepover at the Natural History Museum or the USS Intrepid, an overnight at the Wolf Conservation Center or ziplining at the Bronx Zoo.

I found New Haven's and Darien's program designs to be an exciting twist on the traditional summer reading format. Reading remains the focal point, but participants are asked to take their engagement beyond the pages of a book and into the community around them. At both libraries, the ultimate rewards for these activities are family-based experiences, and as Girgis argues, these are likely more valuable and memorable rewards than an ice cream gift certificate. This is not to say that programs operating on a smaller scale, offering less experiential prizes, aren't valuable. Limited budgets and resources often restrict what a library can offer. Prizes are often highly dependent on donations from local businesses, and not every town will have the same number of local community locations to visit.

There is also something to say for the benefits of simplicity. Take Willimantic, for example, whose program is sort of an antithesis to Darien or New Haven. After a few summers of programs filled with theme-related challenges and activities, Willimantic has returned to a program based entirely on reading. Lisa Clymer of Willimantic Library's Youth Department said, "Over the years our program has evolved from a more elaborate program that took large amounts of staff time to plan and run, to a simpler program with less staff time required." As library funding declines, it may not be possible for libraries to run programs requiring a large staff. But simpler programs can benefit patrons as well as library staff, by reducing the demand on participants and their families: "Since many parents and children have very busy schedules even in summer, we decided to focus more on simply encouraging reading rather than having a program filled with theme-related activities and challenges," Clymer said. Willimantic continues to offer bonus challenges in their programs if participants wish, but they are no longer required

elements as they are in Darien if a participant wants to complete the map. Just as some libraries are returning to print records, others are reverting to more basic, bare bones programs.

In all of the programs, even in the ones moving away from "summer reading," reading remains the centerpiece. Libraries continue to experiment with the traditional format, and it's fascinating that no two programs are exactly alike. That suggests that there is no one winning formula, but rather that libraries should adapt their offerings to their goals as well as the communities and populations around them. For some libraries, that may be a digital program with experiential components; for others, that may be a paper program entirely about reading. Time will tell if programs like Darien and New Haven will become the new norm, or whether they'll follow in Willimantic's footsteps and soon return to a simpler design. The range and diversity in Connecticut's summer reading (or learning) programs is evident, as libraries continue to evolve with the changing landscape.

Conclusions

When I began this project, I hoped to collect data and feedback from just a handful of libraries, and expected the results to be inconclusive at best. Instead, thanks to the immensely helpful and thorough contributions from library staff across the state, this project became something much larger. While it remains a tiny sample size in relation to the state, let alone the country, I hope this project can serve as the foundation for a larger scale survey down the line.

Reviewing existing studies, it's clear that summer setback is very real, especially on reading ability. Due to lower access to reading material, lower baseline scores, and less time for leisure in struggling households, summer setback is particularly seen among students of low socioeconomic status. It's also evident that, when executed properly, summer reading programs can reverse these effects. When structured improperly, however, incentives can remove the intrinsic rewards of reading — making the design of a summer reading program all the more important and difficult.

In terms of quantitative results, using data from libraries of 10 Connecticut towns of varying wealth, geography, and population size, I found that participation in summer reading programs has declined quite dramatically in the last decade, regardless of program design or town wealth. Likewise, average books read per participant has decreased steadily, likely a result of alternate forms of media and entertainment. Encouragingly, the last three years have seen a

flattening of the decline, and last summer saw an overall rebound from the year before, suggesting that libraries are discovering successful designs. With the libraries organized by town wealth, I found a clear correlation between summer reading participation and income. While overall participation in all three groups has trended downwards in recent years, wealth inequality appears to have a strong impact on baseline participation. Whether this is due to busier patrons with less leisure time available, lower access to books, less developed programs due to lower budgets, or some other wealth-related factor, remains unclear. I also divided the libraries based on program design, specifically by the kinds of incentives offered. Although the sample size was limited, I found that "traditional" programs (i.e., ones that offer direct, tangible rewards) continue to average the highest number of participants, and most programs continued to offer the kinds of extrinsic rewards that have worried researchers in recent years.

With that said, I found that library staff are well-versed in the ongoing discussions of summer setback, wealth inequality on education, and the potentially detrimental impacts of extrinsic rewards. I discussed the effects of technology from multiple standpoints, including the enduring relevance of the physical library space and the growing divide between paper and digital programs. Online programs have proved to be insufficient or counterproductive for numerous libraries, while others have found that going digital has increased participation, especially in young adults. I also discussed the varying but similarly aligned goals of summer reading programs, from mediating summer slide to fostering enjoyment in reading as opposed to it being solely an educational chore. Lastly, I explored two programs that have integrated community and cultural events into the design, expanding from summer reading to a broader goal of summer learning.

At the time of this writing, the United States is confronting an unprecedented pandemic in COVID-19. With summer vacation looming, assuming current conditions persist into the summer months, most of these programs will simply not be able to operate on a typical basis. The coronavirus will especially derail the activity-driven, community-based programs, and will put more strain on paper programs than digital ones. How libraries will adapt their summer programs to these unprecedented times will be fascinating. Will paper programs move online, and if so, will they return to paper in the following years? Will participation and reading totals increase due to quarantined participants, or decrease due to the removal of the physical library

space? Or, in a worst case scenario, will libraries cancel their summer reading programs altogether?

       If this study has demonstrated anything, it's that public libraries are not afraid of change, and are eager to adapt their programs as the world evolves. Despite shrinking budgets and fewer readers, summer reading programs have endured, and they'll likely endure this new obstacle as well.

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