



Section I – Executive Summary

Background:

Ballard*King & Associates (B*K) was retained by the City of Northfield to conduct an assessment of the Northfield Ice Arena. B*K understands the study includes a market study to determine how many sheets of ice the community can support along with the potential partnership between St. Olaf College and the City of Northfield. Elements of the B*K assessment include conducting an independent review for the City, market condition review for an ice arena and operating projections for the ice complex. B*K was tasked to explore if the market can support 2 or 3 sheets of ice.

Market Condition Review:

The primary goal of this phase of the study was to explore the community need and demand for the number of ice skating facilities needed in Northfield through market analysis, stakeholder meetings, and inventory of existing facilities in the Northfield area.

The service area for an ice skating facility is typically much larger than more conventional recreation facilities. It is not uncommon to have parents of figure skaters or hockey players to travel up to an hour for ice time. As a result, the market service area for the study encompasses an area described as the School District boundaries. Growth in the service area is only increasing at a modest rate with the population projected to grow about 645 people by 2021. The demographic profile of the community indicates that the age group distribution is somewhat mixed. There is a lower concentration of under 5, 5-17, 25-44, and 45-74 age groups and higher concentration in the 18-24, and over 75 age groups than the national level. There are a large number of families with children in the service area. The median age of service area is younger than the national level while the median household income is higher. Another factor is that the cost of housing in the Northfield area is slightly higher than the State of Minnesota and significantly higher than U.S level. Age and household income are two determining factors that drive participation in ice activities.

There are several other ice rink providers in the general vicinity of Northfield. Although the presence of other service providers in the general area will impact the penetration rate for the secondary ice market from other communities, it should be noted that many of the other rinks in area are newer and have many of the support spaces and locker room size skating groups desire.

When factoring the demographic realities of the service area, trends in youth hockey and demand for ice time it is clear that the City can sustain one sheet of ice, regardless if St. Olaf builds a facility on their campus. The need for more than 2 sheets in the community, including the

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proposed St. Olaf project, cannot be substantiated with adequate demand to make a third sheet of ice financially feasible at this time. A third sheet of ice in Northfield would have an occupancy rate of about 25% based on information gathered from the stakeholders representing local sport organizations.

Conclusion:

Without question, there is support for two rinks in Northfield. However, there is not enough ice time demand to support a third ice sheet in Northfield or a third sheet of ice would have to be subsidized heavily.

Understanding this, the City should move forward with evaluating scenarios below in greater detail as the next steps. The options evaluated should include.

1. Upgrade the existing Northfield Ice Arena with St. Olaf building an ice arena on campus. This option assumes that the existing ice arena can be renovated and expanded on the current site. This option should include an analysis of what new revenue can be generated through the improvements to the Northfield Ice Arena to enable a cost/benefit comparison.
2. Analysis of a new location owned and operated by the City. This option would provide estimated development costs, operational costs, and revenue generation.
3. Partner with St. Olaf to connect a second sheet of ice to their proposed campus ice arena. This option assumes the City of Northfield will discontinue ice use at the existing arena. This option should explore potential funding scenarios along with associated debt service if public financing is required to enable a cost/benefit comparison.

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Section II – Market Assessments

Ballard*King & Associates has been hired by City of Northfield to conduct a market assessment for the Northfield Ice Arena to determine the number of sheets of ice the community can support and if there is enough program and use demand to justify an additional sheet of ice in Northfield serving youth hockey, figure skating and youth hockey.

The following is a summary of the demographic characteristics of the Northfield School District Service Area.

B*K accesses demographic information from Environmental Systems Research Institute (ESRI) who utilizes 2010 Census data and their demographers for 2016-2021 projections. In addition to demographics, ESRI also provides data on housings, recreation, and entertainment spending and adult participation in activities.

Service Areas: The market analysis process begins with identifying a market service area. For a Primary Service Area, B*K has been given direction from the client to include the Northfield School District boundaries for study purposes. Primary Service Areas are defined as the distance people will travel on a regular basis (a minimum of once a week) to utilize an ice skating facility. Use by individuals outside of this area will be much more limited and will focus more on special activities or events.

Service areas can flex or contract based upon a facility's proximity to major thoroughfares. Other factors impacting the use as it relates to driving distance are the presence of alternative service providers in the service area. Alternative service providers can have an effect on membership, daily admissions and the associated penetration rates for programs and services.

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Table A – Service Area Comparison Chart:

	Northfield Public School District
Population:	
2010 Census	27,800
2016 Estimate	28,694
2021 Estimate	29,339
Households:	
2010 Census	9,142
2016 Estimate	9,594
2021 Estimate	9,903
Families:	
2010 Census	6,237
2016 Estimate	6,522
2021 Estimate	6,720
Average Household Size:	
2010 Census	2.53
2016 Estimate	2.50
2021 Estimate	2.49
Ethnicity (2016 Estimate):	
Hispanic	6.6%
White	89.9%
Black	1.5%
American Indian	0.3%
Asian	2.9%
Pacific Islander	0.03%
Other	3.1%
Multiple	2.2%
Median Age:	
2010 Census	31.8
2016 Estimate	32.9
2021 Estimate	33.8
Median Income:	
2016 Estimate	\$71,429
2021 Estimate	\$77,918

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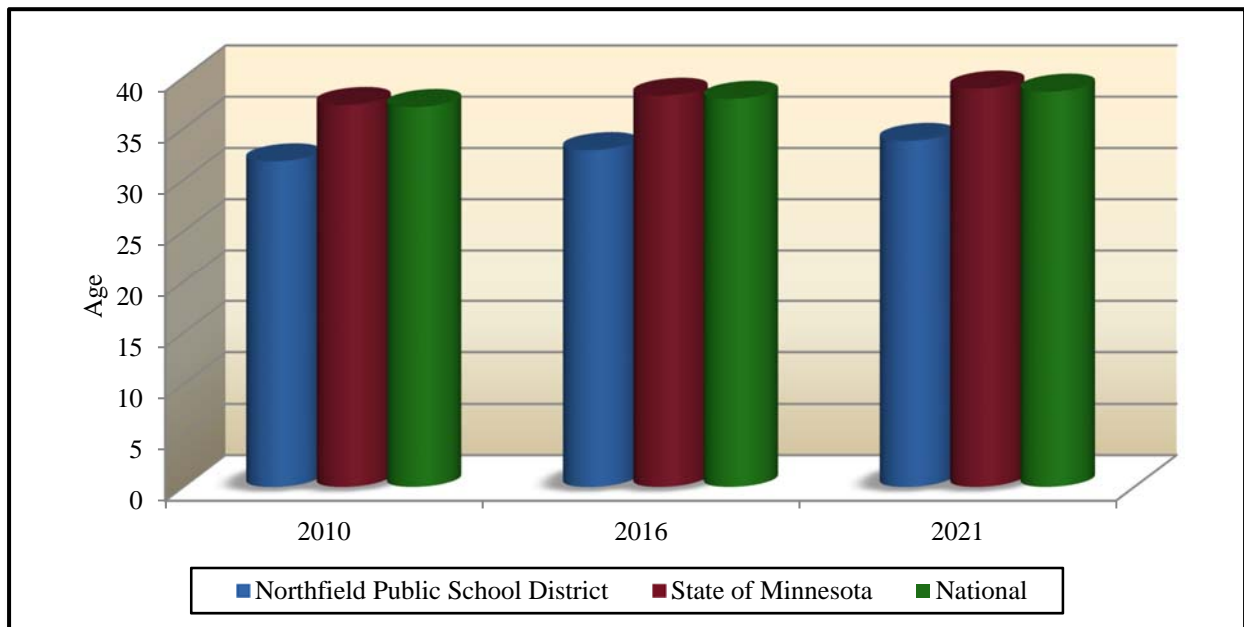


Age and Income: It is important to compare the median age and median household income levels to the national levels. Age and income are primary determiners of participation in recreation activities. The lower the median age, the higher the participation rates are for most activities. The level of participation also increases as the median income level goes up.

Table B – Median Age:

	2010 Census	2016 Projection	2021 Projection
Northfield Public School District	31.8	32.9	33.8
State of Minnesota	37.3	38.2	38.9
National	37.1	38.0	38.7

Chart A – Median Age:



The median age in the Northfield Public School District is lower than the National number and the State of Minnesota. A lower median age points to the presence of families with children, young professionals and potentially college students.

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Households with Children: The following chart provides the number of households and percentage of households in the Northfield Public School District with children.

Table C – Households w/ Children

	Number of Households w/ Children	Percentage of Households w/ Children
Northfield Public School District	3,072	33.6%

The information contained in Table-B helps further outline the presence of families with children. As a point of comparison in the 2010 Census, 31.6% of households in the State of Minnesota had children present and 33.4% of households nationally.

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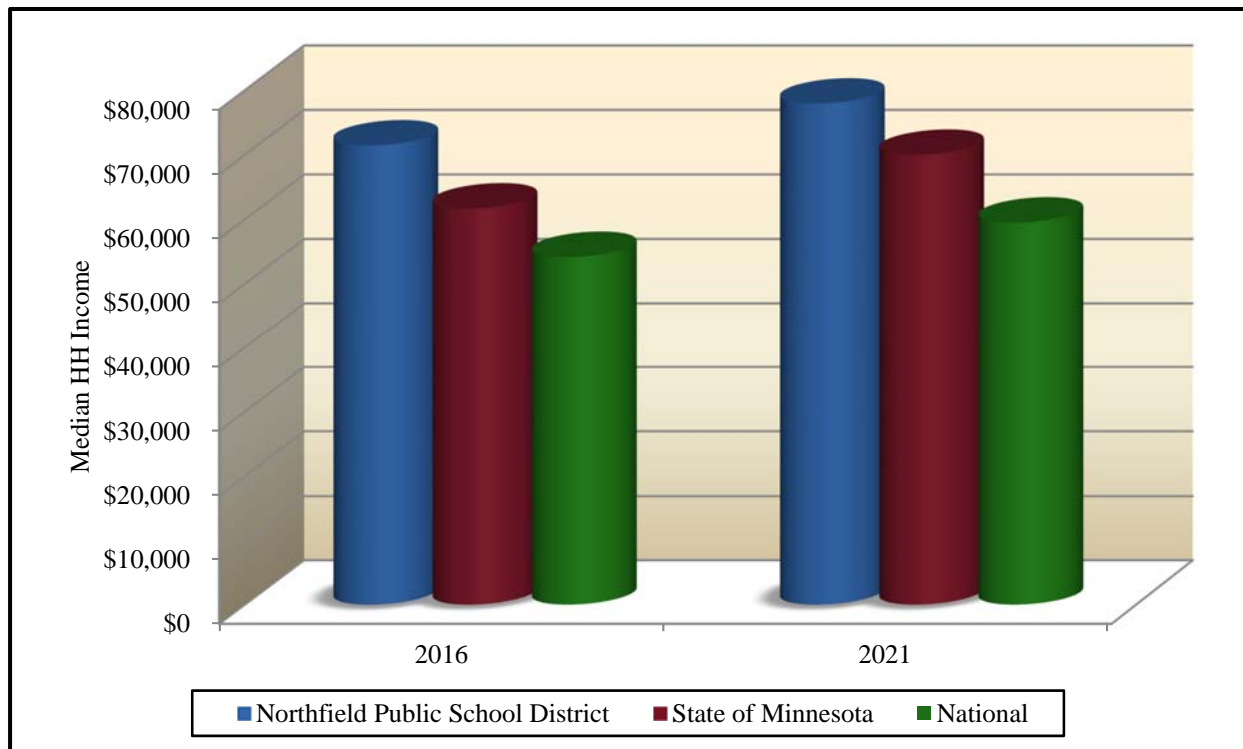
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Table D – Median Household Income:

	2016 Projection	2021 Projection
Northfield Public School District	\$71,429	\$77,918
State of Minnesota	\$61,657	\$69,976
National	\$54,149	\$59,476

Chart B – Median Household Income:



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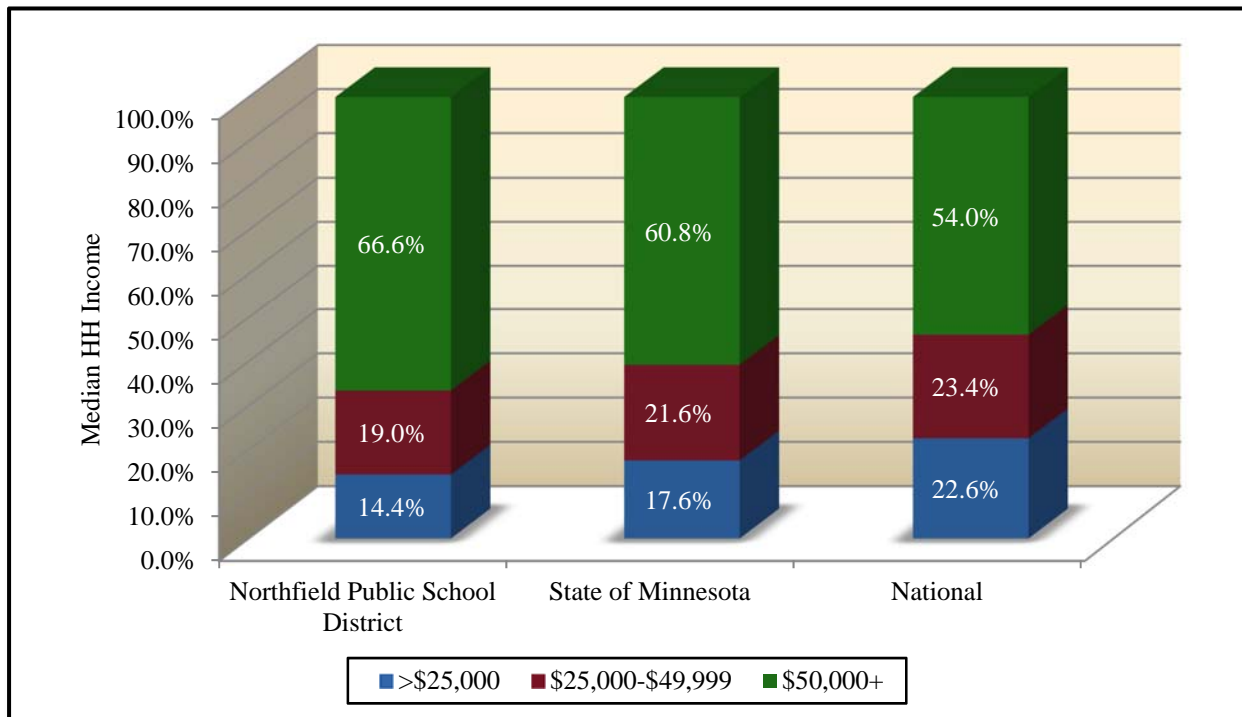


Based on 2016 projections for median household income the following narrative is available:

In the Northfield Public School District area, the percentage of households with median income over \$50,000 per year is 66.6% compared to 54.0% nationally. Furthermore, the percentage of the households in the service area with median income less than \$25,000 per year is 14.4% compared to a level of 22.6% nationally.

The median income in the Northfield Public School District is greater than the National number and State of Minnesota number. The income level must be balanced with the overall cost of living to determine ability to pay for entertainment and recreation services.

Chart C – Median Household Income Distribution



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Household Budget Expenditures: In addition to studying Median Age and Median Income, it is important to examine Household Budget Expenditures. In particular, looking at housing information; shelter, utilities, fuel and public services along with entertainment & recreation can provide a snapshot into the cost of living and spending patterns in the services areas. The table below looks at that information and compares the service areas.

Table E – Household Budget Expenditures¹:

Northfield Public School District	SPI	Average Amount Spent	Percent
Housing	113	\$23,185.48	30.7%
<i>Shelter</i>	<i>114</i>	<i>\$17,761.41</i>	<i>23.6%</i>
<i>Utilities, Fuel, Public Service</i>	<i>111</i>	<i>\$5,424.07</i>	<i>7.2%</i>
Entertainment & Recreation	114	\$3,315.40	4.4%

State of Minnesota	SPI	Average Amount Spent	Percent
Housing	108	\$22,110.52	30.6%
<i>Shelter</i>	<i>108</i>	<i>\$16,781.39</i>	<i>23.2%</i>
<i>Utilities, Fuel, Public Service</i>	<i>109</i>	<i>\$5,329.13</i>	<i>7.4%</i>
Entertainment & Recreation	109	\$3,192.00	4.4%

SPI: Spending Potential Index as compared to the National number of 100.

Average Amount Spent: The average amount spent per household.

Percent: Percent of the total 100% of household expenditures.

Note: Shelter along with Utilities, Fuel, Public Service are a portion of the Housing percentage.

¹ Consumer Spending data are derived from the 2004 and 2005 Consumer Expenditure Surveys, Bureau of Labor Statistics. ESRI forecasts for 2016 and 2021.



Chart D – Household Budget Expenditures Spending Potential Index:

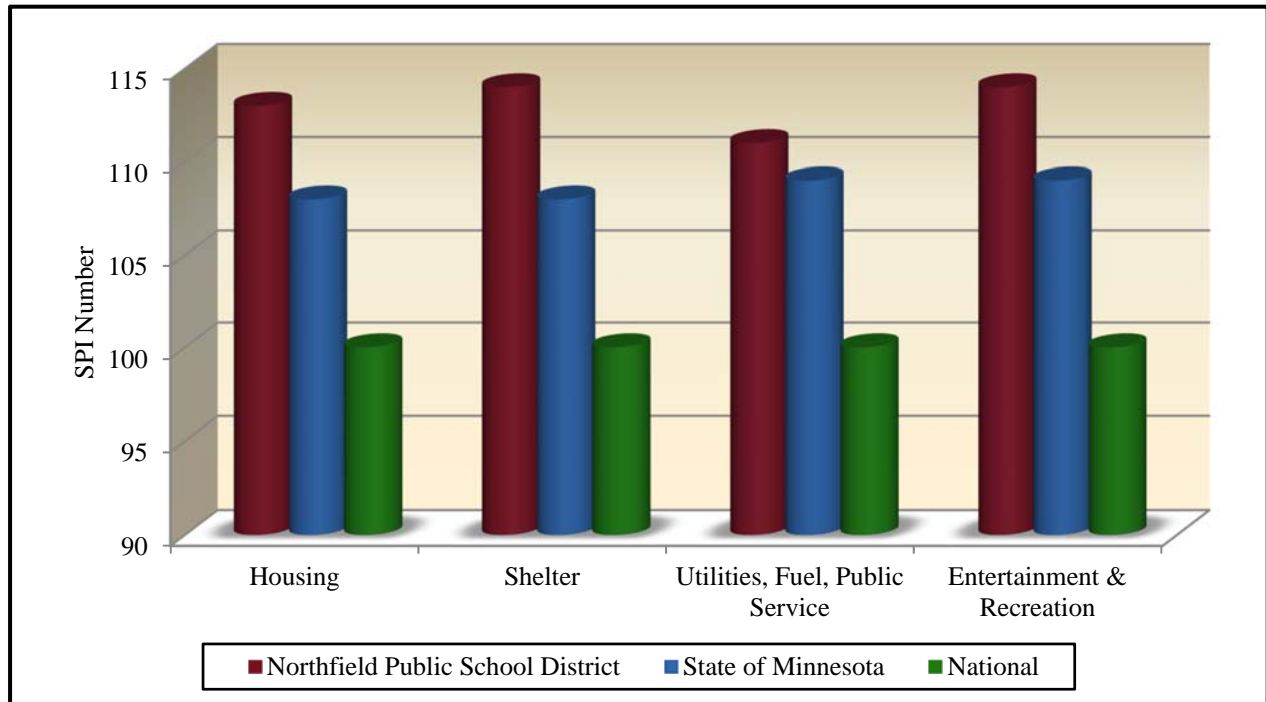


Chart D illustrates the Household Budget Expenditures Spending Potential Index in the service areas. The SPI follows a consistent pattern with median household income. The Northfield Public School District is greater than the National number and the State of Minnesota.

Further Narrative on Housing:

The total number of housing units in the Northfield Public School District, according to the 2010 Census, is 9,840 and 92.9% of those are occupied, or 9,142 housing units. Of the available units (7.1%) a portion is for rent (2.8%).

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Recreation Expenditures Spending Potential Index: Finally, through the demographic provider that B*K utilizes for the market analysis portion of the report, we can examine the overall propensity for households to spend dollars on recreation activities. The following comparisons are possible.

Table F – Recreation Expenditures Spending Potential Index²:

Northfield Public School District	SPI	Average Spent
Fees for Participant Sports	122	\$109.21
Fees for Recreational Lessons	120	\$147.47
Social, Recreation, Club Membership	118	\$225.37
Exercise Equipment/Game Tables	111	\$60.67
Other Sports Equipment	110	\$10.53

State of Minnesota	SPI	Average Spent
Fees for Participant Sports	107	\$95.64
Fees for Recreational Lessons	105	\$129.76
Social, Recreation, Club Membership	106	\$202.74
Exercise Equipment/Game Tables	112	\$60.88
Other Sports Equipment	112	\$10.74

Average Amount Spent: The average amount spent for the service or item in a year.

SPI: Spending potential index as compared to the national number of 100.

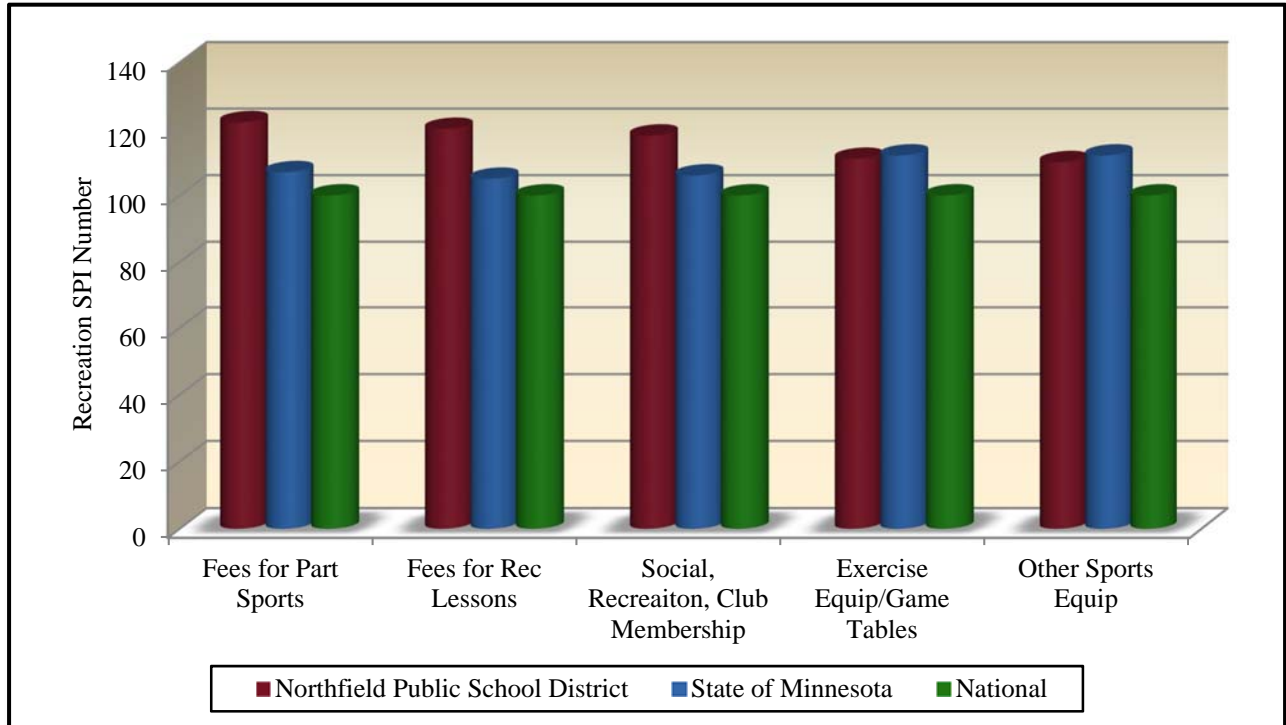
² Consumer Spending data are derived from the 2006 and 2007 Consumer Expenditure Surveys, Bureau of Labor Statistics.

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Chart E – Recreation Spending Potential Index:



The Spending Potential Index for Recreation is like the Household Budgetary Spending. It is also important to note that these dollars are currently spent.

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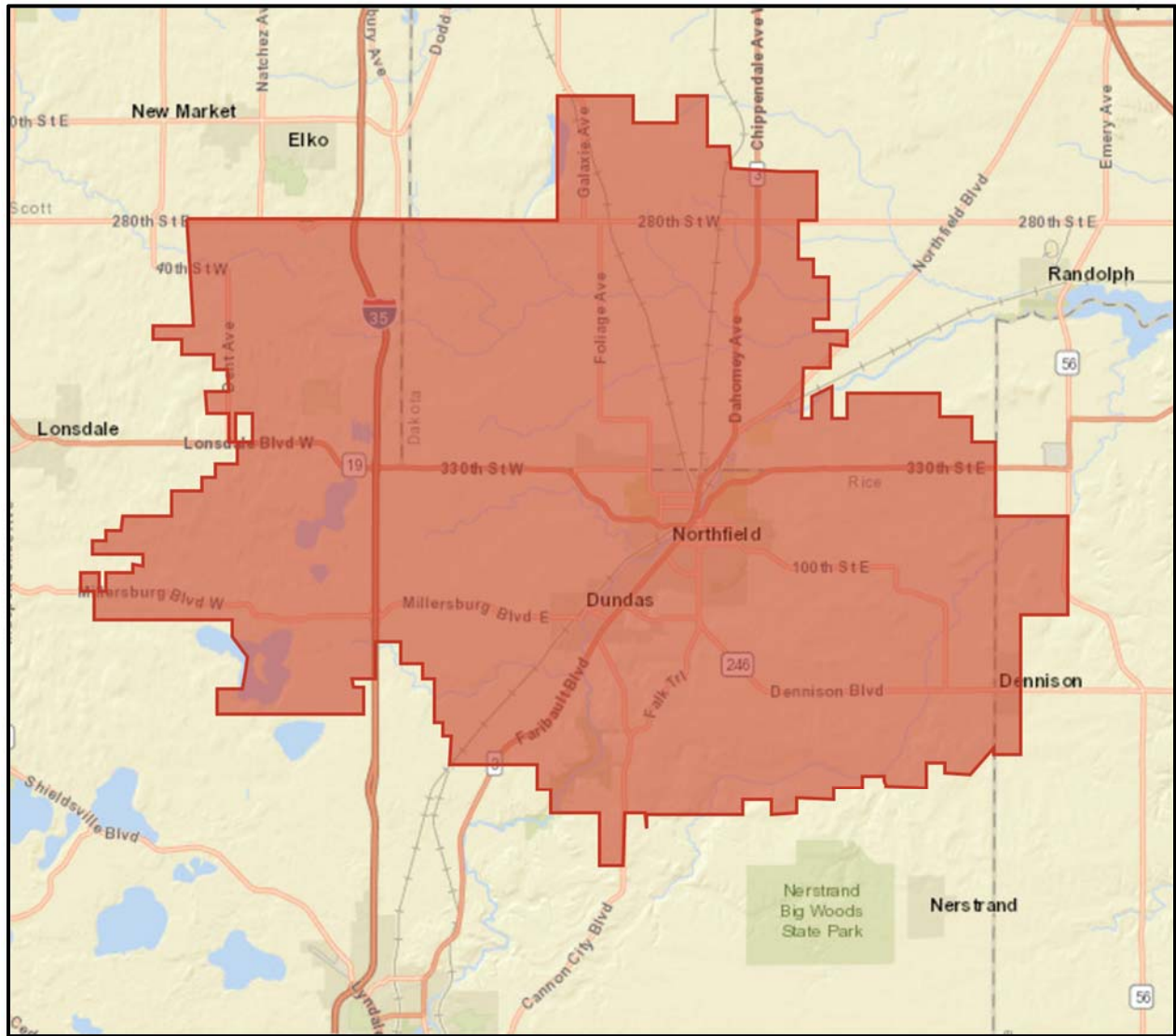
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Primary Service Area Description – The primary service area is the approximate boundaries of the Northfield Public School District.

Map A – Primary Service Area Map:



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Population Distribution by Age: Utilizing census information for the Primary Service Area, the following comparisons are possible.

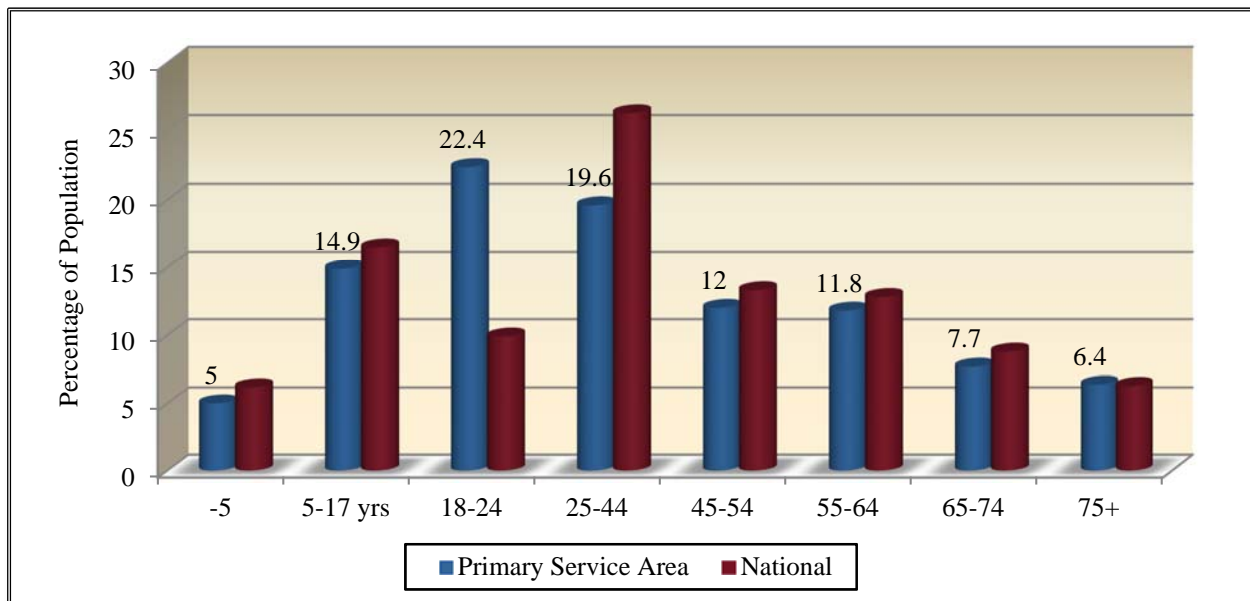
Table G – 2016 Primary Service Area Age Distribution

(ESRI estimates)

Ages	Population	% of Total	Nat'l Population	Difference
-5	1,435	5.0%	6.2%	-1.2%
5-17	4,325	14.9%	16.5%	-1.6%
18-24	6,422	22.4%	9.9%	+12.5%
25-44	5,646	19.6%	26.3%	-6.7%
45-54	3,434	12.0%	13.3%	-1.3%
55-64	3,380	11.8%	12.8%	-1.0%
65-74	2,210	7.7%	8.8%	-1.1%
75+	1,846	6.4%	6.3%	+0.1%

- Population:** 2016 census estimates in the different age groups in the Primary Service Area.
- % of Total:** Percentage of the Primary Service Area/population in the age group.
- National Population:** Percentage of the national population in the age group.
- Difference:** Percentage difference between the Primary Service Area population and the national population.

Chart F – 2016 Primary Service Area Age Group Distribution



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The demographic makeup of the Primary Service Area, when compared to the characteristics of the national population, indicates that there are some differences with an equal or larger population in the 18-24, which is not unusual given the community is home to a college and the 75+ age groups while a smaller population in the -5, 5-17, 25-44, 45-54, 55-64 and 65-74 age groups is noted. The largest positive variance is in the 18-24 age group with +12.5%, while the greatest negative variance is in the 25-44 age group with -6.7%.

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Population Distribution Comparison by Age: Utilizing census information from the Primary Service Area, the following comparisons are possible.

Table H – 2016 Primary Service Area Population Estimates

(U.S. Census Information and ESRI)

Ages	2010 Census	2016 Projection	2021 Projection	Percent Change	Percent Change Nat'l
-5	1,491	1,435	1,444	-3.2%	+1.9%
5-17	4,434	4,325	4,285	-3.4%	+0.5%
18-24	6,295	6,422	6,290	-0.1%	+0.4%
25-44	5,574	5,646	5,980	+7.3%	+9.6%
45-54	3,747	3,434	3,118	-16.8%	-8.8%
55-64	2,931	3,380	3,483	+18.8%	+18.2%
65-74	1,651	2,210	2,633	+59.5%	+56.2%
75+	1,673	1,846	2,102	+25.6%	+27.1%

Chart G – Primary Service Area Population Growth

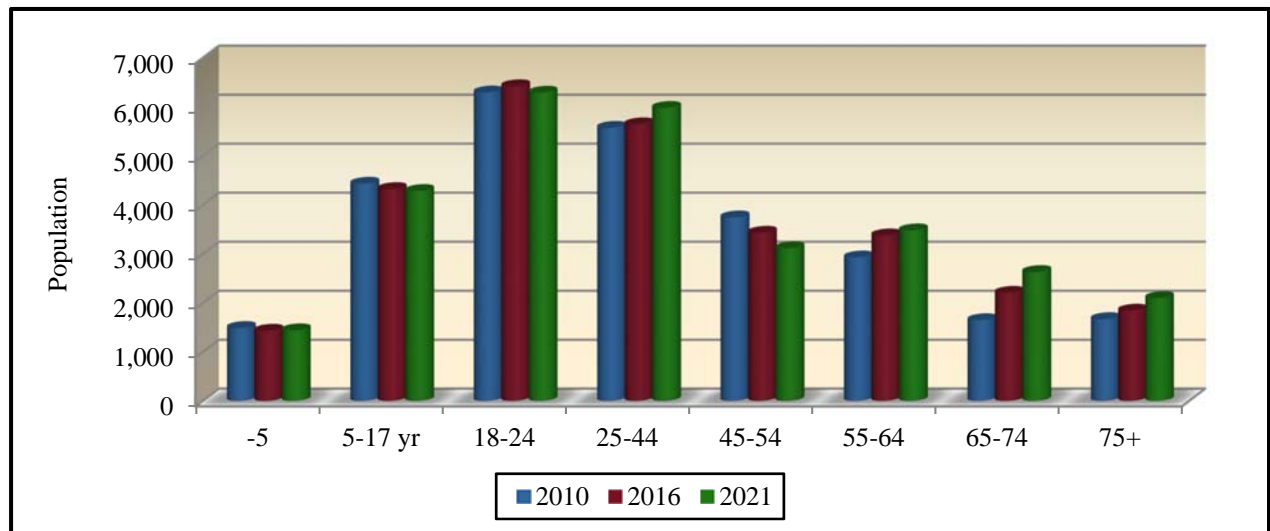


Table H illustrates the growth or decline in age group numbers from the 2010 census until the year 2021. It is projected that half of the age groups will experience an increase, while the age groups of -5, 5-17, 18-24 and 45-54 will experience a decrease. It must be remembered that the population of the United States as a whole is aging and it is not unusual to find negative growth numbers in the younger age groups and significant net gains in the 45 plus age groupings in communities which are relatively stable in their population numbers.

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Ethnicity and Race: Below is listed the distribution of the population by ethnicity and race for the Primary Service Area for 2016 population projections. Those numbers were developed from 2010 Census Data.

Table I – Primary Service Area Ethnic Population and Median Age 2016

(Source – U.S. Census Bureau and ESRI)

Ethnicity	Total Population	Median Age	% of Population	% of MN Population
Hispanic	1,901	22.5	6.6%	5.3%

Table J – Primary Service Area Population by Race and Median Age 2016

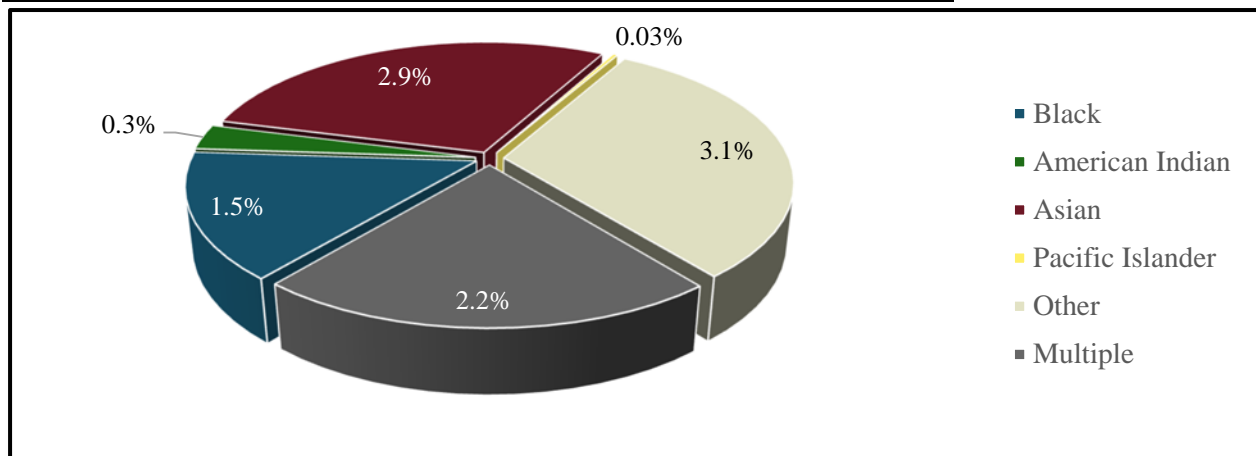
(Source – U.S. Census Bureau and ESRI)

Race	Total Population	Median Age	% of Population	% of MN Population
White	25,799	35.6	89.9%	83.0%
Black	435	22.2	1.5%	6.0%
American Indian	82	30.0	0.3%	1.2%
Asian	844	22.4	2.9%	4.9%
Pacific Islander	10	25.0	0.03%	0.05%
Other	903	24.2	3.1%	2.2%
Multiple	621	18.9	2.2%	2.7%

2016 Primary Service Area Total Population:

123,883 Residents

Chart H – 2016 Primary Service Area Non-White Population by Race



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Tapestry Segmentation

Tapestry segmentation represents the 4th generation of market segmentation systems that began 30 years ago. The 67-segment Tapestry Segmentation system classifies U.S. neighborhoods based on their socioeconomic and demographic compositions. While the demographic landscape of the U.S. has changed significantly since the 2000 Census, the tapestry segmentation has remained stable as neighborhoods have evolved.

The value of including this information for the Service Areas is that it allows the organization to understand better the consumers/constituents in their service areas and supply them with the right products and services.

The Tapestry segmentation system classifies U.S. neighborhoods into 65 individual market segments. More than 60 attributes including; income, employment, home value, housing types, education, household composition, age and other key determinates of consumer behavior are used to identify neighborhoods.

The following pages and tables outline the top 5 tapestry segments in each of the service areas and provides a brief description of each. This information combined with the key indicators and demographic analysis of each service area help further describe the markets that the Primary and Primary Service Areas looks to serve with programs, services, and special events.

For comparison purposes, the following are the top 10 Tapestry segments, along with percentage in the United States. The Primary and Secondary Services may or may not reflect these segments:

1. Green Acres (6A)	3.2%
2. Southern Satellites (10A)	3.2%
3. Savvy Suburbanites (1D)	3.0%
4. Salt of the Earth (6B)	2.9%
5. Soccer Moms (4A)	<u>2.8%</u>
	15.1%
6. Middleburg (4C)	2.8%
7. Midlife Constants (5E)	2.5%
8. Comfortable Empty Nesters (5A)	2.5%
9. Heartland Communities (6F)	2.4%
10. Old and Newcomers (8F)	<u>2.3%</u>
	12.5%

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Table O – Primary Service Area Tapestry Segment Comparison

(ESRI estimates)

	Primary Service Area		Median Age	Median HH Income
	Percent	Cumulative Percent		
Green Acres (6A)	26.5%	26.5%	43.0	\$72,000
In Style (5B)	20.5%	47.0%	41.1	\$66,000
Soccer Moms (4A)	13.3%	60.3%	36.6	\$84,000
Bright Young Prof. (8C)	9.8%	70.1%	32.2	\$50,000
Savvy Suburbanites (1D)	6.5%	76.6%	44.1	\$104,000

Green Acres (6A) – Residents pursue physical fitness vigorously, from working out on home exercise equipment to playing a variety of sports.

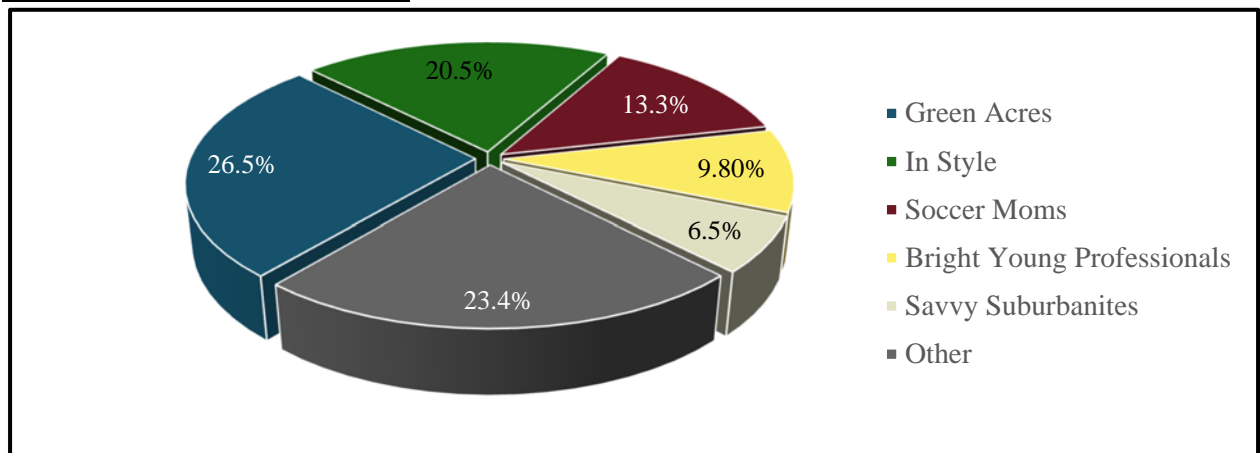
In Style (5B) – Generous with support of various charities and causes. Actively support the arts, theater, concerts and museums.

Soccer Moms (4A) – Outdoor activities and sports are characteristics of life in the suburban periphery, like bicycling, jogging, golfing, boating and target shooting.

Bright Young Professionals (8C) – Read sports magazines and participate in a variety of sports, including backpacking, basketball, football, bowling, Pilates, weight lifting and yoga.

Savvy Suburbanites (1D) – Physically fit, residents actively pursue a number of sports, from skiing to golf, and invest heavily in sports gear and exercise equipment.

Chart H – Tapestry Segments



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Section III – Participation & Trends

In addition to analyzing the demographic realities of the service areas, it is possible to project possible participation in recreation and sport activities.

Participation Numbers: On an annual basis the National Sporting Goods Association (NSGA) conducts an in-depth study and survey of how Americans spend their leisure time. This information provides the data necessary to overlay rate of participation onto the Primary Service Area to determine market potential. The information contained in this section of the report, utilizes the NSGA’s most recent survey. For that data was collected in 2015 and the report was issued in May of 2016.

B*K takes the national average and combines that with participation percentages of the Primary Service Area based upon age distribution, median income, region and National number. Those four percentages are then averaged together to create a unique participation percentage for the service area. This participation percentage when applied to the population of the Primary Service Area then provides an idea of the market potential for various activities.

Ice Related Activities Participation:

Table A – Participation Rates for the Primary Service Area

	Age	Income	Region	Nation	Average
Hockey (ice)	1.2%	1.3%	1.0%	1.1%	1.1%
Ice/Figure Skating	2.8%	2.9%	2.3%	2.6%	2.7%

- Age:** Participation based on individuals ages 7 & Up of the Primary Service Area.
Income: Participation based on the 2013 estimated median household income in the Primary Service Area.
Region: Participation based on regional statistics (West North Central).
National: Participation based on national statistics.
Average: Average of the four columns.

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Anticipated Ice Participation Number: Utilizing the average percentage from Table-A above plus the 2010 census information and census estimates for 2016 and 2021 (over age 7) the following comparisons are available.

Table B – Participation Growth of Decline

	Average	2010 Population	2016 Population	2021 Population	Difference
Hockey (ice)	1.1%	295	306	314	+19
Ice/Figure Skating	2.7%	681	708	725	+44

Note: These figures do not necessarily translate into attendance figures for various activities or programs.

The chart below outlines the frequency of participation in Hockey.

Table C – Participation Frequency Ice Activities

The NSGA classifies hockey based on how often individuals participate:

	Frequent	Occasional	Infrequent
Hockey Frequency	30+	5-29	2-4
Hockey Percentage of Population	29.3%	46.0%	24.7%

In Table-C one can look at hockey and how it is defined with respect to visits being Frequent, Occasional or Infrequent and then the percentage of population that participates.

Table D – Participation Numbers

	Frequent	Occasional	Infrequent	Total
Hockey	32	17	3	
Population	90	141	76	
Visits	2,872	2,395	227	5,494

Table-D takes the frequency information one step further and identifies the number of times individuals may participate in the activity, applies the percentage from Table-C to the 2016 hockey population (306) and then gives a total number of hockey days. This would indicate that a total of 5,494 hockey day are available within the Primary Service Area market. It is also important to note that those are being absorbed, on some level, by the other service providers in the area.

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The chart below outlines the frequency of participation in Ice/Figure Skating.

Table E – Participation Frequency Ice/Figure Skating

The NSGA classifies Swimming based on how often individuals participate:

	Frequent	Occasional	Infrequent
Ice/Figure Skating Frequency	30+	5-29	2-4
Ice/Figure Skating Percentage of Population	6.8%	39.0%	54.2%

In Table-E one can look at ice/figure skating and how it is defined with respect to visits being Frequent, Occasional or Infrequent and then the percentage of population that participates.

Table F – Participation Numbers

	Frequent	Occasional	Infrequent	Total
Ice/Figure Skating	32	17	3	
Population	48	276	384	
Visits	1,540	4,693	1,151	7,385

Table-F takes the frequency information one step further and identifies the number of times individuals may participate in the activity, applies the percentage from Table-C to the 2016 ice/figure skating population (708) and then gives a total number of swimming days. This would indicate that a total of 7,385 ice/figure skating days are available within the Primary Service Area market. It is also important to note that those are being absorbed, on some level, by the other service providers in the area.

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Participation by Ethnicity and Race: The table below compares the overall rate of participation nationally with the rate for Hispanics and African Americans. Utilizing information provided by the National Sporting Goods Association's 2015 survey, the following comparisons are possible.

Table G – Comparison of National, African American and Hispanic Participation Rates

Indoor Activity	Primary Service Area	National Participation	African American Participation	Hispanic Participation
Hockey (ice)	1.1%	1.1%	0.6%	0.8%
Ice/Figure Skating	2.7%	2.6%	1.4%	3.1%

Primary Service Part: The unique participation percentage developed for the Primary Service Area.
National Rate: The national percentage of individuals who participate in the given activity.
African American Rate: The percentage of African-Americans who participate in the given activity.
Hispanic Rate: The percentage of Hispanics who participate in the given activity.

There is a significant (greater than 10%) Hispanic population in the Primary Service Area. As such these numbers play more of a factor with regards to overall participation.

Participation by Age Group: Within the NSGA survey, participation is broken down by age groups. As such B*K can identify the top 3 age groups participating in the activities reflected in this report.

Chart H – Participation by Age Group:

Activity	Largest	Second Largest	Third Largest
Ice/Figure Skating	7-11	12-17	18-24
Hockey (ice)	12-17	7-11	18-24

Largest: Age group with the highest rate of participation.
Second Largest: Age group with the second highest rate of participation.
Third Largest: Age group with the third highest rate of participation.

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Market Potential Index for Adult Participation: In addition to examining the participation numbers for various indoor activities through the NSGA 2015 Survey and the Spending Potential Index for Entertainment & Recreation, B*K can access information about Sports & Leisure Market Potential. The following information illustrates participation rates for adults in swimming in the Primary Service Area.

Table I – Market Potential Index for Adult Participation in Activities

Adults participated in:	Expected Number of Adults	Percent of Population	MPI
Ice Skating	581	2.5%	104

Expected # of Adults: Number of adults, 18 years of age and older, participating in the activity in the Primary Service Area.

Percent of Population: Percent of the service area that participates in the activity.

MPI: Market potential index as compared to the national number of 100.

This table indicates that the overall propensity for adults to participate in ice skating is greater than the national number of 100. In many cases when a participation number is lower than the National number, primary factors include a lack of facilities or an inability to pay for services and programs.

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Sports Participation Trends: Below are listed a number of sports activities and the percentage of growth or decline that each has experienced nationally over the last ten years (2006-2015).

Table J – National Activity Trend (in millions)

Increasing in Popularity

	2006 Participation	2015 Participation	Percent Change
Hockey (ice)	2.6	3.3	+26.9%

Decreasing in Popularity

	2006 Participation	2015 Participation	Percent Change
Ice/Figure Skating ³	8.2	7.6	-7.3%

2015 Participation: The number of participants per year in the activity (in millions) in the United States.

2006 Participation: The number of participants per year in the activity (in millions) in the United States.

Percent Change: The percent change in the level of participation from 2005 to 2014.

Table K – Sports Participation Trends Beyond 10-Year History by Millions

	1990	1995	2000	2005	2010	2015
Hockey (ice)	1.9	2.2	1.9	2.4	3.3	3.3
Ice/Figure Skating	6.5	7.7	-	-	-	7.6

³ Change since 2012.

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Ice Hockey Market and Activity Trends: Growth in ice hockey has leveled off in recent years. According to USA Hockey, the number of youth players registered in the U.S. increase about 1% between the 2011-2012 and 2014-2015 seasons. Registration in Minnesota is relatively flat with an overall slight decrease in registration from the previous year. Closer analysis indicated that the 7-8, 9-10, 11-12, 13-15 and 15-16 age categories experienced a slight decline in registration since the 2010-2011 season. One positive note can be found in the increase of U6 registration which serves as the pyramid base for youth hockey participation. The strength of youth hockey can be found in the entry level age categories. It should be noted that USA Hockey has implemented sweeping changes in the youngest age group by introducing the ADM training model designed to inject fun back into the game of hockey while teaching fundamentals. Another distinguishing characteristic of the ADM program is that it utilizes 1/2 ice for games and multi-station areas for practice. These changes allow for more players on the ice at one time which in turn reduces the cost to the participants.

Another contributing factor that is a challenge for hockey in general is the relatively high cost for participation. Ice hockey is an expensive sport for participants that requires a significant outlay of capital for registration fees, tournaments, equipment and travel costs. It is not uncommon to see registration fees range from \$1,000 to \$1,400 per player in the Twin Cities market area. Adding tournament fees, equipment and travel cost easily push the cost per player over \$2,500 per season.

The statistical information from studying the demographics and USA Hockey registration information is supported by what we heard from a prominent area Ice Arena manager. Over the course of discussions, we heard antidotal examples of how interest in hockey is stable or even declining slightly. For example, even with the population growth in Lakeville the City is not considering adding a fourth sheet of ice to their inventory of space.

USA Hockey Registration in Minnesota									
Year	MN Youth	19+	17 & 18	15 & 16	13 & 14	11 & 12	9 & 10	7 & 8	U6
2014/15	55,450	9,578	1,936	3,326	7,063	8,217	8,223	8,138	8,673
2013/14	54,507	8,995	1,938	3,470	7,137	8,169	8,367	8,071	8,360
2012/13	53,935	8,599	1,925	3,465	7,125	8,218	8,456	7,996	8,125
2011/12	54,951	8,596	1,963	3,382	7,227	8,419	8,527	8,380	8,457
2010/11	54,325	7,730	1,848	3,599	7,094	8,560	8,587	8,407	8,500
Difference	1,125	1,848	88	-273	-31	-343	-364	-269	173
% Change	2.00%	2.40%	0.04%	-0.07%	-0.04%	-4.00%	-4.20%	-3.10%	2.00%

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USA Hockey State registration numbers for Minnesota gives a macro look registration trends. In addition to this trend analysis examining what is happen on a local level is important. One Metrix that speaks to trends on a local level is to examine ice usage at the Northfield Ice Arena. The table below identifies the number of hours rented at the ice arena over the past 5 years not including the summer hours.

Northfield Ice Arena Prime Time Hourly Ice Usage					
	2012/13	2013/14	2014/15	2015/16	2016/17
NHA	564.00	530.75	543.75	612.25	528.25
STO M	275.75*	255.50*	265.25*	296.00*	42.00 ⁴
STO W	119.00	130.00	130.75	108.25	143.50
NHS G	145.75	136.50	144.25	130.50	151.50
NHS B	168.50	162.25	137.75	144.00	134.25
Skate School	12.25	14.50	18.25	17.50	14.75
Club Teams	61.00	61.00	69.00	65.00	63.00
Total Hours	1346.25	1290.50	1309.00	1373.50	1077.25

Note: The * for St. Olaf’s Men’s program includes both prime and non-prime rentals. The ice time usage in 2016/17 reflects only the prime-time usage by the St. Olaf’s Men’s program.

A closer examination of the ice usage indicates that 1,077.25 hours were rented during the 2016/17 season. When comparing the hours rented against the available prime-time hours it is possible to calculate an occupancy rate for the Northfield Ice Arena. During the 2016/17 season the occupancy rate is in the range of about 83% to 94% depending of the definition of prime-time. Calculating prime-time beginning at 3:45pm results in an 83% capacity rate while calculating prime-time ice beginning at 5pm results in a 94% capacity rate.

Overall ice usage over the past 5-year period has decreased about 2.7% at the Northfield Ice Arena including a decrease of 6.3% in Northfield Hockey Association ice usage. Although at the Northfield Ice Arena we are seeing a slight decline, the primary reason is that the Northfield Hockey Association is purchasing ice from Shattuck and Faribault when they have available prime hours earlier in the evening, therefore bringing the occupancy rate down slightly. If the 111 hours that were purchased outside Northfield were added back to the City then the occupancy rate would from 83% to 91%.

⁴ The non-prime St. Olaf ice time (231.75 hrs) has been factored out of the 2016/17 comparison of prime-time ice usage.

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Section III – Alternative Service Providers

A cursory review and inventory of the other ice rinks in the general Northfield area was conducted including interviewing Ice Arena Managers of Lakeville, Farmington and Faribault. Ice rink operators report that the demand for ice time has not exceeded the supply available except for prime-time ice. According to the managers it was clear that most of their individual hockey club needs were being met with the existing inventory of facilities.

Lakeville Ice Arenas (3)

Ice rinks (3) are busy from 3-10pm weekdays and 6am-10pm on weekends Oct-May. The Ice Arena Manager reported that they do not get calls from outside organizations because people seem to know that all the ice at Lakeville is committed to local programs. The ice programs in Lakeville rent about 50 hours per year from Faribault and Shattuck. The Lakeville Youth Hockey Association rents 2,100-2,200 hours per year. High School Hockey commits to 1,000 hours per year. But the demand for additional ice in Lakeville is not significant enough to consider a fourth sheet of ice, especially with Total Hockey coming back in the market. Overall Lakeville has seen a decrease of about 160 hours of rentals between 2015/16 and the 2016/17 season. Seems the City is more inclined to install an indoor sports/turf facility.

Learn to skate program costs \$89 per person for an 8-week session. Cost to play Bantam hockey in Lakeville is \$2,400 per season and they have a total of about 825 players in the Youth Hockey Association.

Rosemount and Farmington tax initiatives failed so those organizations are looking for ice time. However, the Ice Manger cautioned against building a rink to service a secondary market.

The Lakeville Ice Arena, Ames and Hasse (3 sheets total), although relatively close to Northfield and significantly different operations. The Lakeville rinks generated a combined profit of \$46,000 in 2015/16. The size and volume of the hockey program dwarfs that of Northfield in not only size but cost. The ice arena operations in Lakeville include debt service at Ames but they are not paying any debt on the Hasse Rink currently.

Farmington Ice Arena

The Farmington Ice Arena rents 700 hrs per season to youth hockey which accounts for about 54% of their 1,300 ice rentals per year. High Schools skate in the mornings and afternoon to meet the demands for their varsity and JV programs. All the prime-time ice is rented and the rink only has some late-night and day-time non-prime ice available. The Farmington rental rates are \$220 for prime and \$160 for non-prime. The Farmington ice Arena is covering its operating cost

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less debt on \$1.5M improvements. However, the City transfers \$20,000 annually into the capital replacement fund for the ice arena for future capital. Farmington lost a bond referendum to add a second sheet of ice this past Nov. Rosemount also lost its tax initiative to build an ice arena.

There are no hotels in Farmington so tracking economic impact is not important to the City. The hockey teams that require hotels rooms stay in Lakeville and Apple Valley. Hockey tournaments do provide a sales boost to area restaurants.

Farmington rents about 5 hours per year to Lakeville. The Ice Manager feels it would be risky for Northfield to build a City-funded ice rink for ice interest outside the Northfield community.

Total Hockey, which has been out of the ice market while re-locating their business, plans to re-open in 2017 with a full schedule starting in the fall. Farmington was the biggest user of ice time at Total Hockey which reduces the draw from the secondary market in Northfield lessens the need for another sheet of ice in Farmington.

Faribault Ice Arena

Youth Hockey numbers are down in Faribault and the club has been sub-leasing hours to other organizations (estimated at about 30-35 hours per year). The Faribault Youth Hockey is offering incentives to the youngest age groups trying to encourage more players. The Youth Hockey Association is required to rent 525 hours per season, School District required to rent 275 and the City is required to rent 125 hours per year. There is a joint powers board and agreement in place that oversees the ice arena operation. The Rink Manager estimated that the Faribault Club has about 110 participants.

The St. Olaf Women's team rents about 4.5 hours per week for practice – primarily off-prime afternoons. Each youth hockey age group runs a tournament that typically draw 8 teams per tournament. They are seeing 60% of the teams from the Twin Cities area which reduces the economic impact from out of town visitors. Some area youth hockey associations make \$4,000-\$5,000 per tournaments but that has not been the case in Faribault.

Changing demographics are impacting interest in Hockey. Faribault is seeing more Somalia and Hispanics moving into the area and these populations are not interested in hockey. The School District is reporting about 40% of the student population being minority students. The women's hockey program in Faribault is now a co-op with Owatonna because of declining numbers. The learn to skate program in Faribault is run through the Shattuck Ice Arena but Faribault supports the program by processing registration for Faribault residents.

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Farmington, Lakeville and Montgomery rent about 5 hours per year (combined). Faribault decided that there is not enough ice market for them to consider build another sheet of ice. They instead decided to expand and improve their existing rink and added a lobby area and support spaces. The high School teams have dedicated locker rooms.

Faribault offers 4-6 weeks of summer ice. They calculate the operating cost and set the hourly rate in the summer to break even.

None of the ice rinks visited demonstrated any concerns about the possibility of more ice being built in Northfield. The other service providers are successful in their given markets and adding more ice in Northfield will not impact them in any manner. The rink operated recognized that new ice rinks tend to impact and shrink the secondary ice market for non-prime ice rentals but did not feel Northfield would have an impact.

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A series of stakeholder meetings were held with key Ice Arena user groups on Feb 15th and the summary of the stakeholder meetings is below.

Figure Skating Program– Carey

Skating School operates as a separate and individual entity in partnership with the Northfield Public Schools Community Services Division. Program offering is The Learn to Skate USA is the program model offered. The Learn to Skate USA model is sponsored by USA Hockey, US Figure Skating and US Speed Skating and includes hockey skating lessons, off-ice programs and spin. In addition the Northfield Skating School provides group and private skating lessons for children, teens and adults.

Community Education is running the program registration and between 2005-2008 there was a tremendous growth (450% increase) in the program but the numbers have stabilized since 2008 and grew considerably after the launch of Learn to Skate USA in June 2016. Registration increased 46% from the 2015 to 2016 seasons. Currently the Learn to Skate USA program has about 70 participants per sessions. Registration has been as high as 150 participants and the Skating School has 200 people registered in Northfield Skating Program. There is no Figure Skating Club in Northfield. NHA indicated that having a set curriculum has helped build success with young hockey players. NHA sees the program growth potential and support from new young hockey players coming into the program.

Learn to Skate classes are held on Sundays (10:30-1pm) only and the ice time typically back up to public skating to expand skating opportunities for the participants. The City of Northfield offers Freestyle first hour. There are three, 8 week sessions offered yearly. Classes cost \$99/session per participant that includes lessons, open skate punch (8 punches), insurance.

The top skaters in Northfield are forced to pursue their interest in ice skating outside the community because there is not enough ice time. Northfield cannot be more than a skating school without significantly more ice time. There are about 12 skaters that travel to the Twin Cities to pursue figure skating – sometimes 4 times per week.

Using the Learn to Skate USA model has resulted in an upswing in participation for the winter session of skating lessons. The national campaign and marketing for Learn to Skate USA is helping drive more participants and people seem to like the National program model. The Northfield Hockey Association (NHA) outsources their learn to skate program to the skating school.

Multiple days are needed to improve accessibility for the community. Skating lessons/skate school programs offered on three days per week is considered the maximum potential for the area. More ice time could lead to the development of a skating club. After school/early evening

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ice is needed to expand the program. Synchro skating has potential but the skating school does not have enough ice time to pursue.

The Skating Director recommends starting with one additional 2-hour session per week before expanding to a third day/night to allow the program to grow slowly. Currently the financial responsibility for the skating programs falls on Northfield Skating School so the Skating Director would proceed cautiously. Each additional day could create another 150 skaters/participants each.

Having some program support space for a dance room and a skating harness would be beneficial to the skating program.

Northfield Ice Arena charges \$150/hour for ice and does not charge instructors a commission. Northfield Youth Sports Collaborative and Healthy Community Initiatives is providing grant opportunities and about 15-20% of participants in skate program are scholar through the grants.

St Olaf - Mike

St. Olaf is planning a 1-sheet ice arena for the campus and started the \$6M fund raising campaign six months ago. The site plan is proposing to use the old field house as the shell for the new ice arena. The old field house is about 31,000 square feet and adequate size to house an ice arena. Seating capacity estimate is 850 spectators with dedicated locker room, equipment, laundry, lobby, meeting rooms and restrooms, and a media area. Having a facility on campus will allow St. Olaf to expand programming opportunities for their students.

The Northfield Ice Arena does not currently meet all of St. Olaf's program needs. The women's program is forced to travel to Faribault and the day time practice for the men's program occasionally conflict with class schedules. Having a facility on campus will allow St. Olaf to have 3hrs/day for practice for each team and the ability to include a future JV program. More ice provides the opportunity to expand club sports, recreation, activity classes and intramurals as well.

St. Olaf represents about a \$55,000 per year in ice rental income for the Northfield Ice Arena. The City of Northfield will not be able to recapture this revenue source because St. Olaf using a significant amount of non-prime ice time during the day time (M-F before 4pm).

St. Olaf has conducted an internal ice study and found the Northfield market has appetite for two sheets of ice but did not find substantial evidence the market could support a third. At this point, St. Olaf is looking at operating the campus rink on a year-round basis to support summer camps/clinics. The St. Olaf representative indicated that the college would entertain

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conversations around a partnership with the City and school district to provide public access to the campus ice rink, at a limited basis due to the robust programming within the college.

St. Olaf would consider adding a second sheet of ice to the purposed campus facility but capital and operating costs would have to be covered 100 percent through user investment and revenues. This option would be contingent upon the City closing the existing ice arena. To make this second sheet at St. Olaf sustainable financially it would, without question, increase the ice rental rates for youth and high school hockey to over \$200 per hour.

Preliminary capital cost estimates range from \$185-\$205/square foot for ice arena construction. Building a second sheet with locker rooms, storage, meeting rooms and dry land could range from 35,000-60,000 square feet. St. Olaf would retain ownership and operate the second sheet of ice under the terms of long-term lease agreements with ice users.

High School Hockey – Mike

Currently the High School shares ice time with girls' team and alternate the 3:45-5:15/5:30-6:45 time slots. The program is forced to combine varsity and JV practices together. Players cut from the High School program can seek out the Jr Gold program but Northfield does not have a Jr Gold program so players cut must travel to other area rinks for Jr Gold opportunities.

High School coaches can have six weeks of summer contact with players (HS and youth hockey)

The coach is looking for an additional 1.5 hr/day beyond the existing time for boy's team which will add about \$16,000 per season to the Boy's program. The Women's program could have the same need but is undetermined at this point. The financial impact of expanding the ice schedule would be handle within the School District budget through the lease and levy program.

There is a need for improved locker rooms at the ice arena and having a dedicated men's and women's locker is desirable. There is a potential for the Blue Line Boosters to pay for having a dedicated locker room annually. The current seating capacity is adequate. The restrooms, coaches area, concession area, lobby space and wider hallways need to be improved at the facility. Current seating capacity is adequate

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Northfield Hockey Association – Chris/Kyle

NHA currently has 15 teams with about 169 families and 224 skaters. The fee to participate ranges from \$100-\$534 per person for the mite age groups to \$912-\$1,344 for the remaining divisions. The Northfield Hockey Association has one of the lowest fees in surrounding area except for Faribault but they have pull tabs.

Practice schedule:

Mites - 30 hrs per season

Senior Mites – 45 hrs per season

Squirts 81 hrs per season

Peewee – 72 hrs per season

Bantam – 90 hrs per season

Below is a distribution of Northfield Hockey Association participants by level of play (category).

Gender	Level of Play	2016	2015	2014
Female	Girls 10U	18	15	8
Female	Girls 12U	10	13	11
Female	Girls 08U	15	21	10
Female	Mites	14	20	14
Male	Bantam	25	29	26
Male	Mites	33	41	48
Male	Pee Wee	29	21	26
Male	Senior Mite	44	47	29
Male	Squirt	36	33	30
Total		224	240	202

Most of the growth experience in NHA is driven by the interest in girl’s hockey. Overall NHA reports about an 11% increase in participation over the past three seasons. There appears to be some pent-up frustration by NHA over the lack of action by the City in solving the ice arena issues. The City wanting NHA to cover the cost of summer operation has added to the frustration level. NHA needs access to summer ice to remain competitive with other area programs.

Currently NHA rents about 111 hours outside of Northfield per season. The volume of renting ice outside of Northfield is expected to grow slightly in the next few years. It should be noted that some of the demand for renting ice outside Northfield is being driven by access to prime-time ice or better ice times that what local teams can get in Northfield. The hockey club would rather rent a prime-time hour from Faribault or Shattuck than skate a non-prime hour in Northfield. It should be noted that if St. Olaf develops their own facility on campus that 14

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weekend game dates would become available to the Northfield Ice Arena for youth hockey use. These dates represent about 42 hours per season. This could potential reduce NHA’s need for outside ice to less than 70 hours per season.

Given the current level of NHA programming there is not enough ice time demand demonstrated to justify a second sheet of community ice in addition to the sheet of ice proposed for St. Olaf. If two community sheets of ice were available in Northfield the City could host more larger and more hockey tournaments and could expand ice programs in the community to include Curling, adult hockey and broomball. NHA is working within their association to purchase a certain number ice hours on a seasonal basis regardless if they use all the ice or not but is seeking consistency with other organizations in the community. Seems there are community needs with other programs that also need to be addresses like soccer and baseball. Somehow there needs to be a link with other organizations in the community to be successful – especially for a tax initiatives. Broader perspective is needed in the community when assessing youth sports. The first task is to finish the ice arena study process.

Discussion included the potential for NHA to operate the ice arena but the NHA does not feel they have the resources to run the rink.

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Key Findings

Clearly there is a need for two sheets of ice in Northfield, however there wasn't a demonstrated need for a third sheet of ice. The 68 hours of NHA ice rentals outside the community, the 2 hours of ice weekly needed to expand figure skating and the 100-200 hours per season to expand the high school hockey program is not nearly enough to support a third sheet of ice. In fact, the combined needs expressed for additional ice time in the community account for about 25% occupancy rate of the total prime-time ice rentals required to cash flow and support a third sheet of ice.

The City authorized a facility study of the existing ice arena and the report indicated that about \$1,000,000 in repairs are needed over the next ten years to keep the Northfield Ice Arena operational. This does not include making improvements such as adding locker rooms, adding rest rooms, expanding the lobby space or addressing the parking needs. Further study into remodeling and/or expansion possibilities at the existing ice arena to make it a more functional venue for events that includes any significant level of spectators. Added cost of maintenance and facility enhancements will likely be considerations of higher cost of ice time at the existing arena in the future along with consideration to recover lost revenues from St. Olaf's hours.

St. Olaf is planning for developing an ice arena on campus. This could result in about a \$55,000 loss in revenue for the City of Northfield although the City could recoup about 40 hours of prime-time ice that St. Olaf would be vacating. St. Olaf launched their fund raising efforts six months ago and there is no certainty one way or the other if the fund raising campaign will meet its stated goal of \$6M. There is a potential for a partnership between St. Olaf and the City or other community partners and stakeholders that could provide access to the campus facility for community programs and/or a partnership that would add a second sheet of ice to the proposed ice rink project on campus. If a community ice rink is included as part of the campus project the cost for ice time to Northfield Hockey Association, High School Hockey and the Skating School will likely be higher than the current rate at the Northfield Ice Arena and should be further evaluated in the operation analysis phase due to capital cost.