

Full Authorship Table

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Appendices

Appendix A: Accessibility & Need Criteria

Accessibility

- Low cost/free (Smith, 2009)
- Translated documents
- Transportation accommodation (Montgomery, 2013)
- Convenient timing (i.e. after school) (Montgomery, 2013)
- Safe environment (Brown, 2015)

Quality of Programming

- Hiring of professional artists (Montgomery, 2013)
 - Retention of artist staff (Montgomery, 2013)
- Documented arts curricula (Ruppert, 2006)
- Frequency of classes (more is better) (Ruppert, 2006)
- Number of courses offered (more is better) (Ruppert, 2006)
- Variety of courses offered (more is better) (Ruppert, 2006)
 - Topics beyond just visual art (i.e. dancing, music) (Montgomery, 2013)
 - Use of technology (Farnum, 1998)
 - Age appropriate curriculum (Farnum, 1998)

Youth Interest in Programming

- Involvement of participants in lobbying/fundraising activities (Sullivan, 2009)
- Hands-on learning (Farnum, 1998)
- Apprentice-style relationships (Farnum, 1998)
- Participants given leadership roles (Elpus, n.d.)

Parental Appeal

- Parental involvement in program (such as attending a performance as a culmination of a project) (Farnum, 1998)
- Emphasis of practical aspects of the program
 - Learning life skills (Montgomery, 2013)
 - Career presentations from arts-based professionals (Sullivan, 2009)

Appendix B: Parent/Guardian 5-Minute Survey: Accessible Youth Enrichment Programs in Main South, Worcester Questions

Q0000 To take this survey in English, please continue by clicking the arrow.

Para español, haga clic en ese enlace:

http://wpi.qualtrics.com/jfe/form/SV_1OmCElfXGW0GmgZ

Q000 Hello,

Thank you for taking the time to look at this 5-minute survey. We are a student research team from Worcester Polytechnic Institute working with the local organization MainIDEA to examine the current state of accessible youth programs in Main South and understand the impact COVID-19 will have on the sector. Your feedback is valuable!

By filling out this survey, you are affirming that you are over the age of 18 and agree to allow the information collected here to be used in our study.

Your participation is voluntary, and you may choose to request that your survey be withdrawn. Additionally, your responses will remain anonymous, and your name or other identifying information will not be published in any project reports or publications.

Please, fill out this survey by no later than **June 19th, 2020**

If you have any questions on our research or wish for your information not to be used, you may contact the team at gr-mainidea-e20@wpi.edu. If you have any questions regarding your rights as a research subject, you may contact Worcester Polytechnic Institute' review board at IRB@wpi.edu.

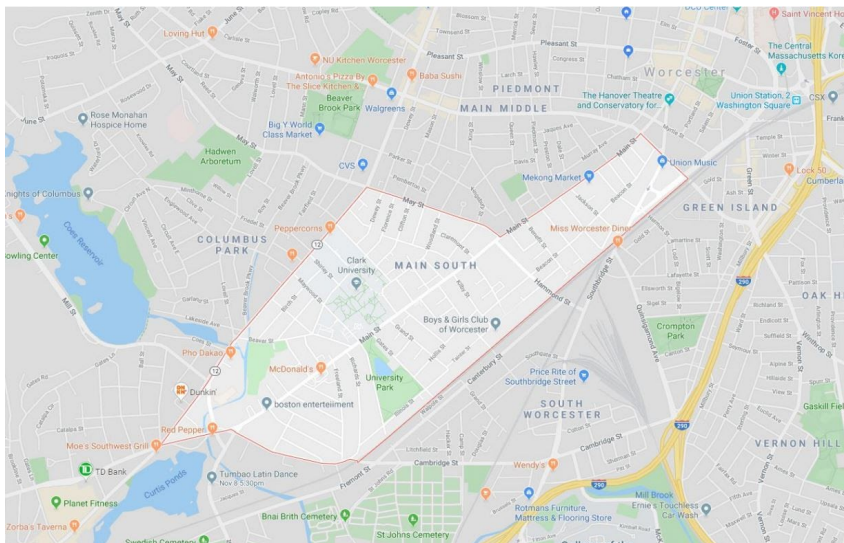
Q00 Do you live in Worcester, MA?

(Condition: No Is Selected. Skip To: End of Survey)

- Yes
- No

Q0 How did you hear about our survey?

Q1 Do you live in the Main South neighborhood?



- Yes
 - No
 - I live in close proximity to this neighborhood
 - I am not sure
-

Q2 How many children (below 18 years of age) are present in your household?

Q3 How old is your $\{\text{lm://Field/1}\}\{\text{lm://Field/2}\}$ child/children?

Q4 What is the Race/Ethnicity of your $\{\text{lm://Field/1}\}\{\text{lm://Field/2}\}$ child/children?

- White
 - Black or African American
 - American Indian or Alaska Native
 - Asian
 - Native Hawaiian or Pacific Islander
 - Multi-racial
 - Other [Text Entry]
 - I prefer not to answer
-

Q5 What school(s) do your $\{\text{lm://Field/1}\}\{\text{lm://Field/2}\}$ children attend?

(If the child is not enrolled in school, you may type "N/A")

Q6 Do you currently have access to the internet in your house?

- Yes
 - No
-

Display This Question: If Do you currently have access to the internet in your house?) Yes Is Selected

Q7 If yes, do you anticipate that you will continue to have internet access for the next 12 months?

- Yes
 - No
 - Maybe
-

Q8 If yes, how high-quality/dependable is your internet connection?

- Very Good
- Good
- Mediocre
- Poor
- Very Poor

Q9 How many internet accessible devices do you have? (Please, exclude smartphones)

Q10 Do any of your children participate in extracurricular youth programs? i.e. Arts programs (visual, performance, or literary arts), sports, clubs, etc.

- Yes
 - No
-

Display This Question: Do any of your children participate in any youth arts programs? (Arts can be defined as visual and/o... = Yes

Q11 Please specify which extracurricular youth programs your children are part of

Display This Question: Do any of your children participate in any youth arts programs? (Arts can be defined as visual, performance, literary arts, etc.) No Is Selected

Q12 What is preventing your child from participating in extracurricular youth programs? (Pick all that apply)

- Affordability of programs available
 - Timing of programs available
 - Lack of transportation
 - Child not interested
 - Other [Text Entry]
-

Q13 Do you feel Main South would benefit from additional affordable youth programs?

- Definitely yes
- Probably yes
- Might or might not
- Probably not
- Definitely not
- I am not sure

Display This Question: Do you feel Main South would benefit from additional access to affordable youth programming? Definitely yes Is Selected

And Do you feel Main South would benefit from additional access to affordable youth programming? Probably yes Is Selected

Q14 Which type of youth programming would you like to see more of?

Q15 How much are you willing to pay for a youth program (per week, per child) ?

- 0\$
 - 1-25\$
 - 25-50\$
 - 50-100\$
 - 100-150\$
 - 150-200\$
 - 250+ \$
-

Q16 How far (in miles) are you willing to travel for a youth program?

- 0 mi
 - 1-5 mi
 - 5-10 mi
 - 10-15 mi
 - 15-20 mi
 - 25+ mi
-

Q17 What is the most likely means of transportation used to get to these youth programs?

- Driving
 - Taking public transportation
 - Biking
 - Walking
 - Other [Text entry]
-

- Moderately unlikely
 - Extremely unlikely
-

Display This Question: Do any of your children participate in any youth arts programs? (Arts can be defined as visual and/o... = Yes

Q22 Are any of the programs that your child participates in providing virtual or remote access due to COVID-19?

- Yes
 - No
 - I am not sure
-

Display This Question: If any of the programs that your child participates in, using virtual or remote tools due to COVI... = Yes

Q23 Please briefly describe what you would like to see from improvements to the programs provided virtually/ remotely.

(You may enter "N/A" to skip this question)

Q24 Do you have any other feedback you would like to provide regarding accessible youth programs in Main South, Worcester?

(You may type "N/A" to skip this question)

Spanish version starts here:

Encuesta de 5 minutos para padres / tutores: Programas accesibles de enriquecimiento juvenil en Main

Q00 Hola,

Gracias por tomar el tiempo de mirar esta encuesta de **5 minutos**. Somos un equipo de investigación estudiantil del Instituto Politécnico de Worcester que trabajamos con la organización local MainIDEA para examinar el estado actual de los programas juveniles accesibles en Main South y entender el impacto que COVID-19 tendrá en el sector. ¡Tus comentarios son valiosos! Al completar esta encuesta, usted afirma que es mayor de 18 años y acepta permitir que la información recopilada aquí se use en nuestro estudio. Su participación es voluntaria y puede optar a retire su encuesta. Además, sus respuestas permanecerán anónimas, y su nombre y otra información de identificación no se publicará en ningún informe o publicación del proyecto. **Por favor, complete esta encuesta antes del 19 de junio de 2020**

Si tiene alguna pregunta sobre nuestra investigación o desea que su información no se use, puede comunicarse con el equipo en gr-mainidea-e20@wpi.edu. Si tiene alguna pregunta sobre sus derechos como sujeto de investigación, puede comunicarse con la junta de revisión del Instituto Politécnico de Worcester en IRB@wpi.edu

Q0 ¿Vives en Worcester, MA?

- Sí
- No

Skip To: End of Survey If ¿Vives en Worcester, MA? = No

Q1 ¿Resides en el vecindario Main South?

- Sí
 - No
 - No estoy seguro
 - Vivo muy cerca de este barrio
-

Q2 ¿Cuál es su raza / etnia?

- Blanco
 - Negro o Afroamericano
 - Indígenas Americanos o Nativo de Alaska
 - Asiático
 - Nativo de Hawái o Isleño del Pacífico Asiático
 - Multirracial
 - Otra _____
 - Prefiero no contestar
-

Q3 ¿Cuántos niños (menores de 18 años) vive en su hogar?

Q4 ¿Cuántos años tiene su hijo / hijos?

Q5 ¿Cuál es la raza / etnia de su hijo / hijos?

- Blanco
 - Negro o Afroamericano
 - Indígenas Americanos o Nativo de Alaska
 - Asiático
 - Nativo de Hawái o Isleño del Pacífico Asiático
 - Multirracial
 - Otra
 - Prefiero no contestar
-

Q6 ¿A qué escuela (s) asisten sus hijos? (Si el niño/a no está matriculado en la escuela, puede escribir "N / A")

Q7 ¿Actualmente tiene acceso a internet en su casa?

- Sí
 - No
-

Display This Question: If ¿Actualmente tiene acceso a internet en su casa? = Sí

Q8 ¿Anticipa que continuará teniendo acceso al Internet durante los próximos 12 meses?

- Sí
 - No
 - Tal vez
-

Q9 ¿Qué tan buena / confiable es su conexión al Internet?

- Muy bueno
 - Bueno
 - media
 - Pobre
 - Muy pobre
-

Q10 ¿Cuántos dispositivos tienen acceso al internet? (Por favor, excluya los teléfonos inteligentes/smartphones)

Q11 ¿Alguno de sus hijos participa en actividades / programas juveniles? (por ejemplo, programas de artes (visual, actuación, artes literarias), deportes, clubes, etc.)

- Sí
 - No
-

Display This Question: ¿Algún de sus hijos participa en actividades / programas juveniles?
(por ejemplo, programas de a... = Sí

Q12 Especifique en qué programas juveniles extracurriculares participan sus hijos

Display This Question: ¿Algún de sus hijos participa en actividades / programas juveniles?
(por ejemplo, programas de a... = No

Q13 ¿Qué está impidiendo que su hijo / hijos participen en programas extracurriculares para jóvenes? (Seleccione todas las que correspondan)

- Asequibilidad de los programas disponibles
 - Tiempo de programas disponibles
 - Falta de transporte
 - Niño/a no está interesado/s
 - Otra _____
-

Q14 ¿Sientes que Main South se beneficiaría de un acceso adicional a una programación juvenil asequible?

- Definitivamente sí
 - Probablemente sí
 - Tal vez
 - Probablemente no
 - Definitivamente no
 - No estoy seguro/a
-

Display This Question:

If ¿Sientes que Main South se beneficiaría de un acceso adicional a una programación juvenil asequib... = Probablemente sí

And ¿Sientes que Main South se beneficiaría de un acceso adicional a una programación juvenil asequib... = Definitivamente sí

And ¿Sientes que Main South se beneficiaría de un acceso adicional a una programación juvenil asequib... = Tal vez

Q15 ¿Qué tipos de programas te gustaría ver más?

Q16 ¿Cuánto está dispuesto a pagar por un programa de artes juveniles (por semana, por niño)?

- 0\$
 - 1-25\$
 - 25-50\$
 - 50-100\$
 - 100-150\$
 - 150-200\$
 - 250+ \$
-

Q17 ¿Qué tan lejos (en millas) está dispuesto a viajar para un programa de arte juvenil?

- 0 mi
 - 1-5 mi
 - 5-10 mi
 - 10-15 mi
 - 15-20 mi
 - 25+ mi
-

Q18 ¿Cuál es el medio de transporte más probable que utilizaría para llegar a estos programas juveniles?

- Auto/coche
 - Transporte público
 - Ciclismo
 - Caminando
 - Otro _____
-

Q19 Al considerar un programa juvenil, ¿qué tan importante es la asequibilidad para usted?

- Extremadamente importante
 - Muy importante
 - Moderadamente importante
 - un poco importante
 - No tan importante
-

Q20 Al considerar un programa juvenil, ¿qué importancia tiene para usted la calidad?

- Extremadamente importante
 - Muy importante
 - Moderadamente importante
 - un poco importante
 - No tan importante
-

Q21 Al considerar un programa para jóvenes, ¿qué importancia tiene la distancia de viaje para usted?

- Extremadamente importante
 - Muy importante
 - Moderadamente importante
 - un poco importante
 - No tan importante
-

Display This Question: If ¿Alguno de sus hijos participa en actividades / programas juveniles?
(por ejemplo, programas de a... = Sí

Q22 ¿Qué posibilidades hay de que sus hijos reanuden su participación en programas extracurriculares para jóvenes después de COVID-19?

- Muy probable
 - Moderadamente probable
 - Un poco probable
 - Ni probable ni improbable
 - Un poco improbable
 - Moderadamente improbable
 - Muy improbable
-

Display This Question: If ¿Alguno de sus hijos participa en actividades / programas juveniles?
(por ejemplo, programas de a... = Sí

Q23 ¿Alguno de los programas en los que su hijo participa proporciona acceso virtual o remoto debido a COVID-19?

- Sí
 - No
 - Tal vez
-

Display This Question: If ¿Alguno de los programas en los que su hijo participa proporciona acceso virtual o remoto debid... = Sí

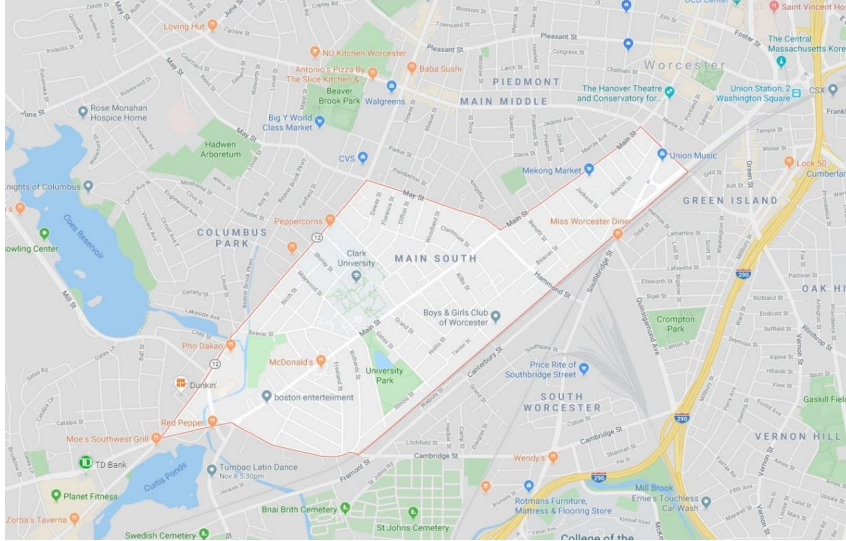
Q24 Describe brevemente lo que le gustaría ver para mejorar los programas proporcionados de forma virtual / remota. (Puede escribir "N / A" para omitir esta pregunta)

Q25 ¿Tiene algún otro comentario que le gustaría dar sobre los programas para jóvenes accesibles en Main South, Worcester? (Puede escribir "N / A" para omitir esta pregunta)

Appendix C: COVID-19 Impact on Worcester Youth Organizations Questions

ORGANIZATION INFO

1. What is the name of your youth organization?
2. Please provide your first and last initial (for example, John Doe would type in J.D.), and your title at your youth organization.
3. What is the age range of youth that your organization serves?
4. Approx. how many youth does your organization serve per week? Annually?
 - a. Please explain how you determine the number of youth served per week/annually accurately, and describe what tools are used to determine youth participation.
5. How many in-person programs does your organization offer (Pre-COVID-19)?
6. Approx. how many total youth does your organization have capacity to accommodate for in-person programs, given your current programs and staff/volunteers (Pre-COVID-19)?
7. Is there a cost in order for your participants to enroll in your programs?
 - a. Please list your full pricing for all programs you offer:
8. Does your organization offer any programs at a discount rate or free of cost to participants?
 - a. How do applicants register for this, and what is the selection process?
9. Where are your organization's in-person programs offered (Pre-COVID-19)? *Check all that apply:*
 - a. Within the city of Worcester
 - b. Within Worcester County
 - c. Outside of Worcester County
 - d. Within the Main South neighborhood, as defined in the map below:



10. How do youth enroll in your organization's programs (Post-COVID-19)?
- Online application
 - Printed application
 - Both
 - Other [Text Entry]
11. Are the applications for participants available in languages other than English?
- a. Yes
 - i. What other languages are the applications available in?
 - b. No
12. Does your organization keep records of the geographic residences of its program applicants, and how does this impact the registration process for enrollment?
13. How does your organization define and determine if a program participant is "underserved?"
14. What percentage of your program participants are underserved?
15. Please explain how you determine this number accurately, and what tools are used to determine youth participation.
16. What types of youth programs does your organization offer (Pre-COVID-19)?
- a. Arts (Visual Art, Performance, Literary)
 - b. Sports/Athletics
 - c. Lifeskills
 - d. Academics
 - e. Other [Text Entry]

COVID-19 IMPACT:

17. Since COVID-19, what types of youth programs does your organization currently offer?

- a. Arts (Visual Art, Performance, Literary)
 - b. Sports/Athletics
 - c. Lifeskills
 - d. Academics
 - e. Other [Text Entry]
18. Since COVID-19, has the age range of youth your organization serves changed?
19. Since COVID-19, does your organization keep records of the geographic residences of its program participants, and how does this impact the registration process for enrollment?
20. Since COVID-19, has the percentage of your underserved program participants (as previously defined) decreased?
- a. Yes
 - b. No
 - c. Unsure
21. Please explain how you determine the number of underserved participants accurately, and what tools are used to determine youth participation, since COVID-19.

As a result of the COVID-19 pandemic, has your organization experienced - or is it experiencing - any of the following:

22. Decreased the quantity of your youth programs

- a. Yes, this has or is happening
- b. No, but I expect this will happen
- c. No, and I don't expect this to happen
- d. Don't know or N/A

23. Reduced number of youth participants in your programs

- a. Yes, this has or is happening
- b. No, but I expect this will happen
- c. No, and I don't expect this to happen
- d. Don't know or N/A

24. Reduced staff levels (e.g. conducted layoffs or furloughs)

- a. Yes, this has or is happening
- b. No, but I expect this will happen
- c. No, and I don't expect this to happen
- d. Don't know or N/A

25. Experienced an increase in the demand for your programs and services

- a. Yes, this has or is happening
- b. No, but I expect this will happen
- c. No, and I don't expect this to happen
- d. Don't know or N/A

26. Experienced a decrease in demand for your programs and services

- a. Yes, this has or is happening
- b. No, but I expect this will happen
- c. No, and I don't expect this to happen
- d. Don't know or N/A

27. Experienced reduced capacity (e.g. staff or volunteer absences)

- a. Yes, this has or is happening
- b. No, but I expect this will happen
- c. No, and I don't expect this to happen
- d. Don't know or N/A

28. Experienced a decrease in earned and/or contributed revenue

- a. Yes, this has or is happening
- b. No, but I expect this will happen
- c. No, and I don't expect this to happen
- d. Don't know or N/A

29. How has your organization's programming changed since COVID-19 (check all that apply)?

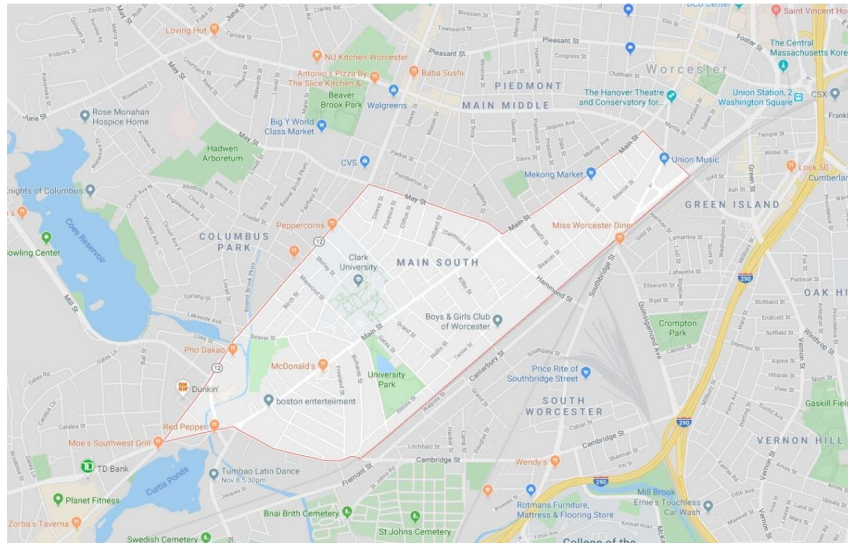
- a. Some of our organization's in-person programs have been postponed or cancelled
- b. Most of or all of our in-person programs have been postponed or cancelled
- c. Some of our in-person programs have been converted into virtual programs
- d. Most of or all of our in-person programs have been converted into virtual programs
- e. We have launched new virtual programs
- f. We have/plan to provide our youth participants with remote-learning tools (printed curriculum packets, activity supplies, etc.) during Summer and/or Fall 2020
- g. We plan to resume/relaunch most or all of our previous in-person programs by Fall 2020
- h. We plan to resume/relaunch some of our in-person programs by Fall 2020
- i. We plan to continue hosting virtual programs after Phase 4 of the Massachusetts Reopening.
- j. Other [Text Entry]

30. Since COVID-19, who participates in your current programs (in-person or virtual)?

Check all that apply:

- a. Unsure
- b. Within the city of Worcester
- c. Within Worcester County
- d. Outside of Worcester County

e. Within the Main South neighborhood, as defined in the map below:



31. Please explain how you determine this number accurately, and what tools are used to determine youth participation.
32. Are you willing to be contacted for any follow-up questions we might have?
 - a. Yes
 - b. No, thank you
33. Would you like to receive a copy of the final results of this survey?
 - a. Yes
 - b. No, thank you
34. Please enter your email so that we may contact you.

Appendix D: Internet Connectivity Interview Guide

Location: Online (Zoom)

Purpose of Interview: Gain information about internet connectivity in Worcester to determine accessibility to virtual programming.

Preamble:

Hello and thank you for meeting us. We want to clarify that we are a student research team from Worcester Polytechnic Institute working with the local organization Main IDEA to examine the current state of accessible youth programming in Main South and understand the impact COVID-19 will have on the sector.

Your participation is voluntary, and you may choose to end your interview or withdraw at any time. Additionally, your responses will remain anonymous, and your name or other identifying information will not be published in any project reports or publications.

Our team would like to record this interview to make transcription easier. You may still participate in the study without agreeing. Is making a recording acceptable?

If you have any questions about our research, you may contact the team at gr-mainidea-e20@wpi.edu. If you have any questions regarding your rights as a research subject, you may contact Worcester Polytechnic Institute's review board at IRB@wpi.edu.

Questions:

- How long have you been involved in your organization?
- What is your role in this organization?
- How have you been able to determine who has access to the internet?
 - How have you been able to determine how many devices are available/household?
 - How have you determined the quality/strength of internet access?

- Are you working/communicating with any other groups/individuals to help you assess this need? If so, would you be able to provide us with their contact info as well?
- We are aware that there is a Wifi connectivity map available, why do you think not everyone has been able to access it/ make use of its shown hotspots?
- When was the last time the map updated?
- How can we have ongoing access/updated info on this topic? (VIP)

Appendix E: Educational Officials Interview Guide

Interview Target Demographic: Educational Officials

Location: Online (Zoom)

Purpose of Interview: Gain an understanding of how educational officials view the need for additional youth arts programming available in Main South and to investigate how COVID-19 is impacting programming.

Preamble:

Hello and thank you for meeting us. We want to clarify that we are a student research team from Worcester Polytechnic Institute working with the local organization Main IDEA to examine the current state of youth programming in Main South and understand the impact COVID-19 will have on the sector.

Your participation is voluntary, and you may choose to end your interview or withdraw at any time. Additionally, your responses will remain anonymous, and your name or other identifying information will not be published in any project reports or publications.

Our team would like to record this interview to make transcription easier. You may still participate in the study without agreeing. Is making a recording acceptable?

If you have any questions on our research, you may contact the team at gr-mainidea-e20@wpi.edu. If you have any questions regarding your rights as a research subject, you may contact Worcester Polytechnic Institute's review board at IRB@wpi.edu.

Questions:

- How long have you been involved with the organization? (teacher, principal, superintendent)
 - Was that time fully spent serving Main South?
- How has the transition to remote learning been impacting students?
 - Beyond what is published online, how are students who might not have regular technology or internet access being served?
 - How have you been determining which students have access to devices and reliable internet?
 - Is this an ongoing process? How long do you expect it to take?
 - How are you prioritizing funding to address this issue?
- Beyond switching to remote learning, how is COVID-19 impacting your students? (generally and mentally)
 - How do you think COVID-19 is impacting low-income students/youth?
 - Probe: What challenges do you think low-income youth are currently facing, that other youth may not experience?
- As you transitioned to remote learning, what aspects of the curriculum did you prioritize?
 - Probe: Are all subjects delivered remotely? Were some cut to make room for others?
 - How much access were students provided with to enrichment activities such as the arts and music?
 - Are there any plans to provide additional learning opportunities for students over the summer, or the start of the next year?
 - Are there any efforts to move after school programs online?

In addition to our questions on the impact of COVID-19, we wanted to ask you about the impact of youth arts exposure and access.

- Have you observed differences in academic performance between students that engage in the arts or attend additional arts programs VS the ones that don't?
- In your experience, what are the key factors that prevent families from accessing youth programs (in Main South)?
- Do you feel that students (in Main South) benefit from having a larger variety of arts programs?
 - What program traits do you think would be beneficial to the Worcester community? What efforts have your school/district been making in order to make arts more accessible to youth attending Worcester Public Schools (in Main South)?

Closing:

Thank you for taking the time to speak with us. If you have any questions on our study or wish to receive a copy of your interview transcript or our research you may contact the team at gr-mainidea-e20@wpi.edu.

Have a nice day/afternoon/evening, and thank you again.

Appendix F: Policy Makers and Funder Interview Guide

Interview Target Demographic: Policy Maker and Funders

Location: Online (Zoom)

Purpose of Interview: Gain an understanding of how the current situation is affecting policies and funding.

Preamble:

Hello and thank you for meeting us. We want to clarify that we are a student research team from Worcester Polytechnic Institute working with the local organization Main IDEA to examine the current state of youth programming in Main South and understand the impact COVID-19 will have on the sector.

Your participation is voluntary, and you may choose to end your interview or withdraw at any time. Additionally, your responses will remain anonymous, and your name or other identifying information will not be published in any project reports or publications.

Our team would like to record this interview to make transcription easier. You may still participate in the study without agreeing. Is making a recording acceptable?

If you have any questions about our research, you may contact the team at gr-mainidea-e20@wpi.edu. If you have any questions regarding your rights as a research subject, you may contact Worcester Polytechnic Institute's review board at IRB@wpi.edu.

Questions:

- Just to confirm, is it okay with you if we record this interview? Recording the interview is just going to be used as a reference for us, but it would not be published. Also, it will help us create a transcript should you request one.
- How long have you been involved in your organization?
- Can you describe the responsibilities of your role within your organization?
- Has your organization made any changes to your funding priorities as a result of COVID-19? (Clarify, who they're giving funding to, not what internal activities they're funding)
 - What sectors are you prioritizing? Why are you prioritizing these sectors over others?
 - How has the funding of youth arts programming by your organization changed because of COVID-19, if at all?
 - Does your organization plan to return the funding of these programs to their pre-COVID levels in the future?
 - (If yes) When does your organization plan to do this?
 - (If no) What is the reasoning behind this decision?
 - How are you determining the metrics used to decide the amount of funding each sector gets?
- Can you think of anyone else we should speak to for our research?

Policy Maker Specific Questions:

- What factors do you consider in making guidelines for the reopening of programs?

Worcester Arts Council specific questions

- How is COVID-19 going to impact arts funding (in both city and state budgets) in the long term?
- What do you think will be necessary to make up the funding gap?

- Do you think it's possible?

Closing:

Thank you for taking the time to speak with us. If you have any questions on our study or wish to receive a copy of your interview transcript or our research you may contact the team at gr-mainidea-e20@wpi.edu.

Have a nice day/afternoon/evening, and thank you again.

Appendix G: Epistolary Interview Questions to Organization Directors

1. Has your organization experienced a decrease in revenue since COVID-19? If so, what caused the decrease (i.e. insufficient funding, low enrollments)?
2. If your organization experienced a reduced staff capacity, why did this occur? Were there layoffs or furloughs done in response to COVID-19 or a lack of funding?
3. If your organization is engaging or will engage in virtual programming, how do you plan to involve participants who do not have easy access to electronic devices? Will your organization make any efforts to involve these participants?
4. If your organization has made cuts in the variety of offerings, will these be restored in the future (i.e. when the state reopens)?

Does your organization feel that receiving more funding would alleviate the difficulties of responding to COVID-19 and better allow it to serve its community?

Supplemental Materials

Main IDEA Worcester

Accessible Arts Education for Main South

An Interactive Qualifying Project

submitted to the Faculty of

WORCESTER POLYTECHNIC INSTITUTE

in partial fulfilment of the requirements for the

degree of Bachelor of Science

by

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Chapter 1: Introduction

Exposure to the arts is necessary for youth development and success. They can help with trauma recovery and emotional management (Lyshak-Stelzer et al., 2007; Brunson et al., 2002), correlate with improved academic achievement (Catterall et al., 2012), and behavioral outcomes (Catterall et al., 2012; Elpus, n.d), help school retention rates (Elpus, n.d) and assist youth in developing critical soft-skills (Kisida et al. 2015).

Consequently, it is vital to have high-quality arts education and programming. There are many traits shared by successful programs such as: having a portion of staff being active professional artists or inviting professionals as guests (Montgomery, 2013; Sullivan, 2009), peer support and project groups, and community cooperation and interaction (Farnum, 1998; Elpus, n.d.). Additionally, successful youth arts programs also need to appeal to participants and their families. Programs can achieve interest by many methods, notably age-appropriate curriculums, hands-on learning and public performances, apprentice relationships, technology use, and participant autonomy (Farnum, 1998; Elpus, n.d). Perhaps the most critical factors in a program offering high-quality youth arts education are its accessibility and safety (Smith, 2009; Brown, 2015). However, there are many communities across the United States that lack such programming.

In one particular American city, Worcester, MA, there are many youth arts programs. However, very few are located in or near one of the most economically disadvantaged neighborhoods of Worcester, Main South (American Community Survey, 2018; Worcester Regional Research Bureau, 2019). The few programs that do exist, and have low or no cost are not necessarily well known due to a lack of central listing. Additionally, the COVID-19 pandemic is likely to have an exacerbated impact on the arts education and charity sectors. Youth arts programs are considered non-essential businesses and charities, and therefore ordered to close by the Massachusetts state government to maintain social distancing. Consequently, there has been a significant loss of revenue (about \$264 million) and arts jobs (about 15,000) since the pandemic began (Steiner, 2020b). Access to arts programs has been dramatically reduced due to all students now only using online learning, preventing families from supplementing the limited public art education with extracurricular activities. Many households in Worcester's lack

computer and internet access - 14.3% lack computers, and 22.1% do not have internet access - preventing many students from accessing what is available (United, 2019). Massachusetts state tax revenue is also predicted to drop by roughly 25%, so funding for public education and programming may significantly decrease (Snyder, 2020).

Main IDEA is a youth arts and leadership organization founded in 2011 and serves 1500 participants and aims to “[empower] youth by providing quality accessible arts programs to under-resourced communities” (Main IDEA, 2020). Our team is working with Main IDEA in the Main South neighborhood to examine the accessibility of existing programming, determine how well those programs fulfill community needs, develop an almanac of organizations for the area, and analyze the impact of COVID-19 on the arts education sector.

One organization impacted by decreased funding due to COVID-19 is Main IDEA. Main IDEA is a youth arts and leadership organization founded in 2011 and serves 1500 participants and aims to “[empower] youth by providing quality accessible arts programs to under-resourced communities” (Main IDEA, 2020). Our team is working with Main IDEA in the Main South neighborhood to examine the accessibility of existing programming, determine how well those programs fulfill community needs, develop an almanac of organizations for the area, and analyze the impact of COVID-19 on the arts education sector. In the next chapter, we explore specifics of youth arts programs, examine the situation in Worcester and Main South, and the impacts of COVID-19.

Chapter 2: Literature Review

2.1 Introduction

In this chapter, we will discuss the effects of arts programs on youth and the need for such programs in Worcester. First we discuss the positive effects of youth arts programs on youth development. Then we include the criteria for evaluating the success of youth arts program. Next, we discuss Worcester demographics and define the area of Main South. Subsequently, we give an overview of some of the current youth arts programs serving Main South. Finally, we discuss the past and future effects of COVID-19 on the arts.

2.2 Benefits of Art on Youth Development

Arts education and programming are essential tools in improving life outcomes for youth, particularly those at risk from factors such as childhood poverty, living in areas with high crime rates, and childhood abuse (Coholic, 2011). There are three main areas in which youth benefit from arts exposure: emotional management, academic achievement, and behavioral outcomes.

In terms of emotional management, there are two significant benefits: direct emotional improvements for the participating youth and the implementation of arts-enhanced therapy techniques. The former can consist of visible improvements to self-respect and the ability of youth to resist peer pressure (Brunson et al., 2002). However, the positive impact of the arts exceeds basic emotional management for participants and can help maintain and treat mental health problems. The concept of art therapy is well known, though sometimes criticized. Parents are often concerned that it is another form of play rather than an explorative therapeutic exercise (Malchiodi, 2016). However, the use of art in treatment can be quite effective, particularly in the case of trauma recovery. A 2007 study found that, over several weeks, art-based PTSD treatment reduced participant scores on the UCLA PTSD Reaction Index by an average of 20.8 points vs. 2.5 points for the control receiving treatment as usual (Lyshak-Stelzer et al., 2007). Additionally, a 2011 study by Coholic suggests that art-based mindfulness-based cognitive behavioral therapy (MBCT) has improved results over regular MBCT for improvement of self-concept in youth, in part due to the engaging and “fun” nature of the therapy. Participants saw significant gains, with increases of about 2.5 points on the Piers-Harris Children’s Self-Concept Scale - A growth of about five percent (Coholic, 2011; Coholic & Eys, 2015).

Beyond emotional improvement, arts education has a strong positive correlation with academic achievement, starting at an early age. Many early developmental skills can develop with early childhood art. For example, scissors can build dexterity for writing, discussion of art projects allows children to develop shape and color language, and the creative aspects of projects can encourage risk-taking in safe environments (Hwang Lynch, n.d.). The educational benefits extend into traditional schooling as well. Art students from low socioeconomic status are more likely to have higher academic achievement than students with little or no art background. For example, a 2012 study by Catterall, Dumais, and Hampden-Thompson on the effects of art and achievement showed students participating in arts are more likely to engage in extracurricular activities, such as honors societies and sports, with 76-95% vs. 50% participation. Additionally, students with an arts background had an average GPA 0.15 - 0.39 points higher than those without strong arts education and performed better on tests (Catterall et al., 2012). Furthermore, youth engaging in the arts are more likely to stay in school longer due to stronger academic attachment than those who do not participate (Elpus, n.d.). They also achieve higher educational attainment, with 43% earning at least an associate's degree, vs. 16% of students with low art exposure (Catterall et al., 2012).

The educational benefits also stretch beyond traditional developmental milestones into harder to develop soft skills. A 2015 study by Kisida, Bowen, and Greene showed a causal relationship between arts exposure and improved critical thinking. Students who received a structured art-based learning activity - a guided tour at a local art museum - saw significant improvement of essay scores on analyses of works of art they have never seen before after attending the activity (Kisida et al. 2015).

Besides improving the emotional and educational outcomes of youth, arts education correlates with the development of healthy behaviors, such as prosocial views and decreased adult drug use. In the 2012 arts and achievement study by Catterall et al., youth with high arts engagement were more likely to take part in student governments, with 16% being members vs. five percent of students with low arts engagement. Similarly, Catterall et al. showed individuals who participated in art programs were more likely to participate in service clubs, with 19%-30% being members vs. five percent of students with little to no involvement in art. Beyond service

clubs, individuals involved in art as children are more likely to volunteer regularly and participate in elections and political campaigns (Catterall et al., 2012). Additionally, in an examination of data from previous studies, Elpus showed a correlation between youth arts education and decreased drug youth later in life. Both dance and music students were less likely to try illicit substances - dance students 62.13% and music students 25.12% less likely than non-students. Similarly, the study indicated a relationship with decreased adult criminal records, with art students being 26% less likely to be arrested (Elpus, n.d).

Given the possible benefits of regular arts exposure on youth, youth must be afforded the opportunity for high-quality arts education and programming. In the next section, we will discuss the defining features of successful arts programs.

2.3 Traits of a Successful Youth Art Program

To maximize positive outcomes for youth, it is important for art programs to follow managerial guidelines that ensure a meaningful, educational experience and be both appealing and accessible to its clients.

A successful youth art program ideally follows managerial guidelines that will ensure its quality. A report by Denise Montgomery, the founder of a consulting practice focusing on organizational development for art and cultural organizations, asserts that one of the main managerial practices of successful art programs is the hiring and retention of professional, active artists. The report claims that artists who are involved in making art will know their subjects best, and they will keep program participants engaged by showing how art skills can be applied in one's career and one's life. Montgomery also stresses the importance of retention of these artists. Montgomery describes one art program in San Antonio that has had success in retaining professional artists; in this program, SAY Sí, staff artists are given decision-making powers, benefits, and good salaries (Montgomery, 2013). The YouthARTS Handbook (1998), published by Americans for the Arts, discusses elements of a successful youth art program, including peer support groups and ongoing professional development. These practices can encourage staff to stay by creating a cooperative community. The book also states that the implementation of support groups and professional development will increase the quality of offered courses because instructors will learn from one another's mistakes and successes (Farnum, 1998). Based on a

study from Dr. Patrick Sullivan, a professor from the University of Illinois, retention of artists is particularly important because it allows the staff to form relationships with participants. The study describes other management practices that are common in successful youth programs. One of these practices is inviting professionals to host presentations, which interfaces youth with adults and can inspire them to follow certain career paths. Another practice discussed by the study is involving participants in asking for donations or lobbying for funding. Sullivan asserts that these practices give participants a sense of belonging, teach them valuable lessons about the professional world, and foster the development of communication skills (Sullivan, 2009). By following these management guidelines, a youth art program will keep a stable community of teachers and will endow its participants with useful skills.

In addition to the administrative guidelines described above, a successful youth art program must be appealing to its participants and their families. Farnum describes several methods to maintain program appeal to participants. One of these practices is the development of an age-appropriate curriculum. Such a curriculum will allow youth of all ages to participate meaningfully and not feel out of place. Farnum also states that hands-on learning, apprentice relationships, and the use of technology will keep participants engaged. Youth participants are particularly attracted to these methods of learning, which are dynamic and engaging (Farnum, 1998). Participants should also be actively involved in the community; children should be given leadership roles by being allowed to make decisions, such as what project they can work on (Elpus, n.d.). Secondly, youth need to be aware of the more interesting topics in art. Through interviews, Montgomery found that many children associate art strictly with visual art, which is not of key interest. Instead, many urban youth want to be involved in things like dancing, singing, design, digital media, and beat-making (Montgomery, 2013). Thirdly, children should be allowed to work together in groups because it is more entertaining and engaging than solitary work (Elpus, n.d.). Sometimes, youth are barred from art programs because their families do not understand or trust the program. To circumvent this issue, parents should be involved in the program. Farnum's book suggests hosting public performances that mark the culmination of a participant's project. Farnum states that these performances not only engage a participant's family with the program, but also give the participant self esteem and confidence (Farnum,

1998). Another barrier identified by Montgomery is that parents do not believe that a youth art program fosters the growth of beneficial skills. Therefore, their parents believe that bringing their children to an art program is a waste of time and money. To counter this, Montgomery suggests that an art program should broadcast the skill sets one can gain from art (Montgomery, 2013). Ensuring that an art program is engaging for participants and attractive to their families can increase enrollment and maintain participant and parent satisfaction.

Finally, a successful art program should be accessible to its clients. Typically, urban families are barred from art programs because of cost and transportation. Many families, especially those from low socioeconomic backgrounds, do not send their children to arts programs because they cannot afford it (Smith, 2009). Based on this finding from Fran Smith, a writer for Edutopia, an art program should be free or low cost to ensure that children of any economic background can participate. In addition to cost, Montgomery claims that transportation is a significant issue because parents do not have schedules that allow them to drive children to program centers. To alleviate this, Montgomery suggests that a successful art program should occur at a time that is reasonable for participants and their families, such as immediately after school (Montgomery, 2013). Lastly, the program must occur in a safe environment. This environment must be safe physically and emotionally, which is conducive to positive youth engagement (Brown, 2015). By making the program accessible, a broad range of clients can be supported. Accessibility is particularly important for low-income urban areas, such as Main South in Worcester, Massachusetts.

2.4 Worcester Demographics & Need

Worcester, MA located in central Massachusetts, is the second largest city in New England, often called “The Heart of Massachusetts” (United States Census Bureau, 2019). Main South is a neighborhood located in the South Worcester region. In order to find the specific census data, demographics are found by defining the Main South area as the census tracts below, which encompasses most of the area (Figure 1). The red dot denotes Main IDEA’s address, though they have more locations inside the Main South area.



Figure 1: Map of Main South (FFIEC)

Comparing the demographic differences of Main South between the metropolitan area and the state will give a sense of how different the three groups are.



Figure 2: 2018-9 Race Demographics

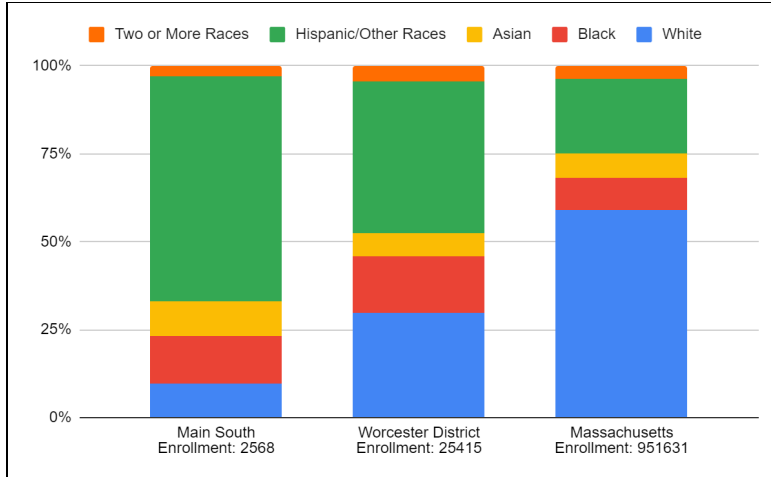


Figure 3: 2018-9 Student Race Demographics

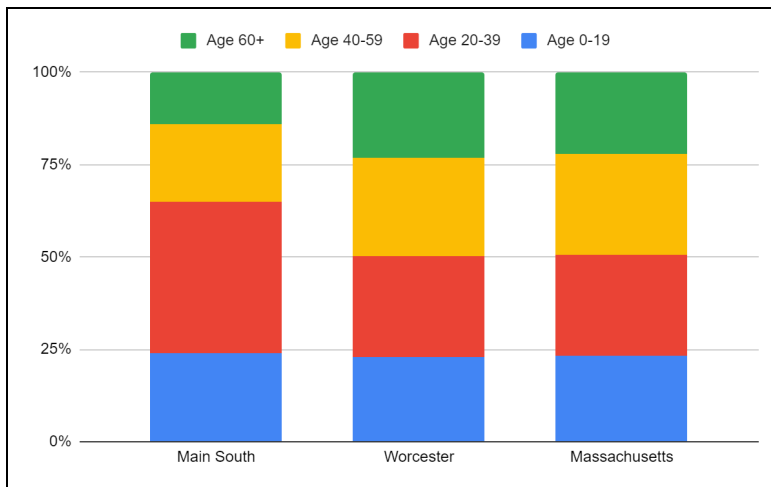


Figure 4: 2018-9 Age Demographics

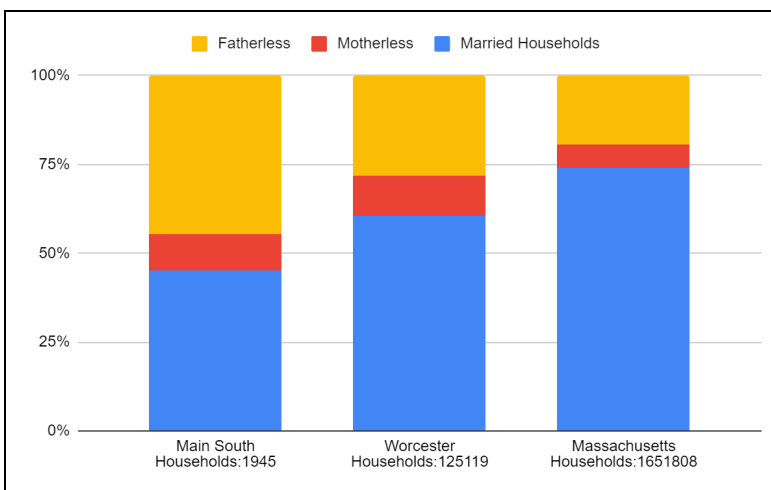


Figure 5: 2018-9 Family Household Demographics

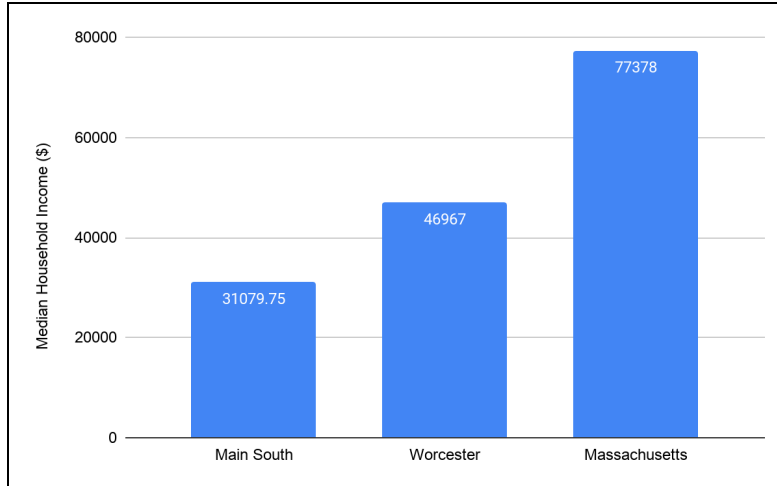


Figure 6: 2018-9 Median Household Income

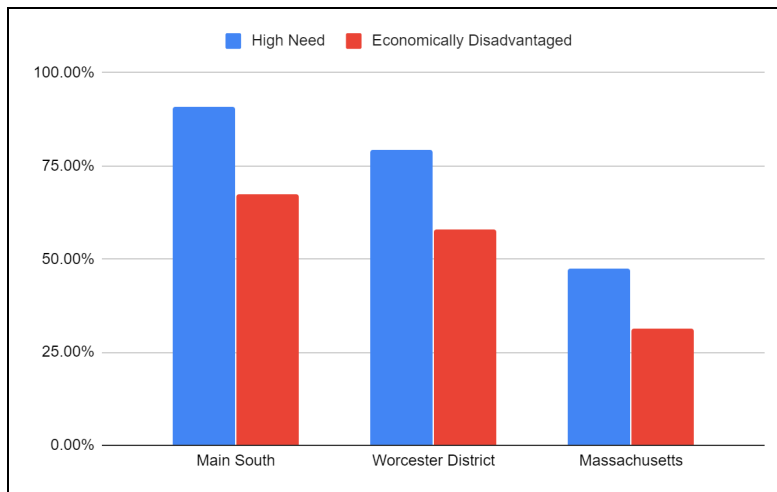


Figure 7: 2018-9 Student High Need and Economically Disadvantaged Classification

Figure 2 displays comparisons with respect to the race demographics. The population of Metropolitan Worcester and Massachusetts are 800,000 and 6.8 million, respectively. A white majority demographic making up 75% of the Massachusetts population. The population of Main South is 13,000, but the minority population percentage is up to 40%, reflecting Worcester's increased minority population percentage of about 50% (American Community Survey, Census Reporter). Figure 3 displays race demographics with respect to the student population, with Main South having an overwhelmingly Hispanic population at approximately 60%, again reflecting Worcester's increasing minority population with a minority student population at around 50% (Massachusetts Department of Elementary and Secondary Education). Figure 4 displays comparisons with respect to the age demographics. The target demographic for Main IDEA are

the youth, ages 18 and under, which make up roughly 25% for Main South, Worcester and Massachusetts. What's most telling are household demographics in Figure 5, which give a sense of the household conditions the youth live in. 60% of Worcester households and 75% of Massachusetts family households are run by both a mother and father. Unfortunately, that statistic takes a sharp drop to 45% in Main South, especially with 45% of Main South family households run by a single mother. Figure 6 shows that Main South households have a median income of \$30000, more than half of the median income of Massachusetts households at \$70000. So already, growing up in Main South is difficult with more fatherless households and living in lower class conditions¹ (American Community Survey).

The neighborhood also has a relative crime problem, given that according to a Clark University study, because despite having “less than 3% of the [Worcester] population, but represented almost 17% of all reported incidents and 24% of all arrests” (Ogneva-Himmelberger, et.al, 2019). According to the most recent data, Main South between 2014 and 2017 had 594 social disorder crimes and 267 violent crimes reported. The study concluded that the high occurrence of criminal activity instilled a sense of fear among residents, including children, resulting in previous disengagement from community life.

However, recent urban development has shown signs of improvement. Since its inception in 1986, the Main South Community Development Center (MSCDC) and Clark University have worked on revitalization projects (*Historical Perspective*, 2013). \$19 million has been invested since 2010 in revitalization projects. In order to continue rebuilding a community where children can survive and thrive, investment into education is key according to the MSCDC, especially in the arts.

In relation to our project, the Worcester school system does incorporate art programs in its curriculum. All elementary and middle school students take a visual arts class once a week through an offered afterschool art club (*Visual Arts*, 2019). All elementary school students take a performing arts class once a week, with a lot more after school programs, such as band and chorus, available (*Performing Arts*, 2019). According to Main IDEA's Impact Report, Worcester high school students are only required to take one art class to graduate. 70% of Main South

¹ The American Community Survey is an organization run by the U.S. Census Bureau. It acts as an unofficial census during the years between decades when the Census is not taken.

students are economically disadvantaged and 90% have high needs. The Impact Report concludes that the Main South neighborhood of Worcester is under-resourced and it also shows in student academic performance (Main IDEA, 2019).

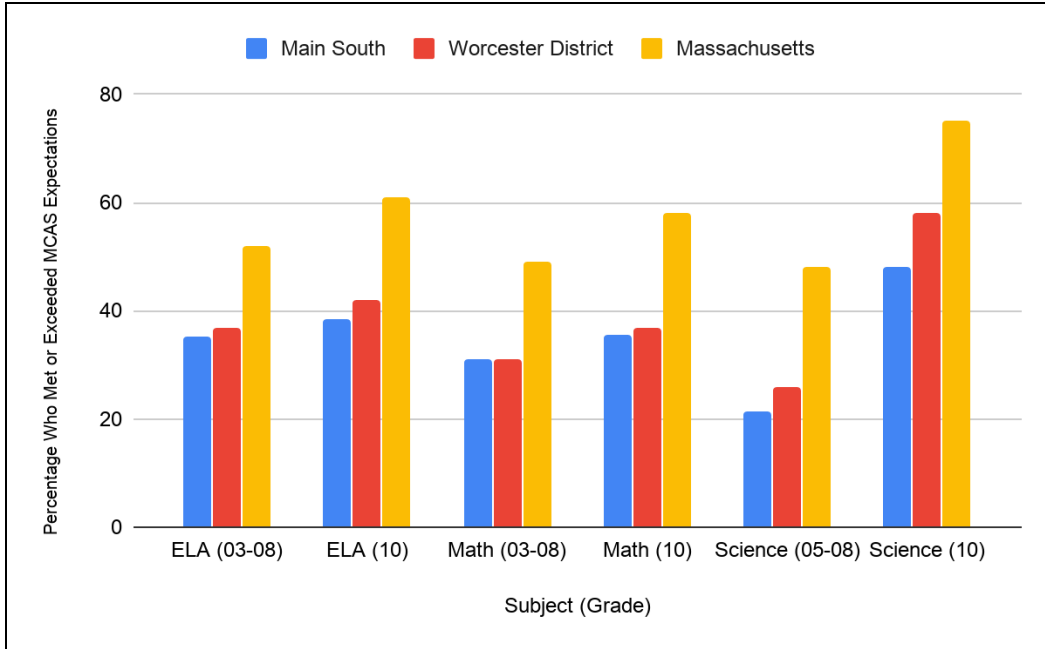


Figure 8: 2018-9 MCAS Expectations²

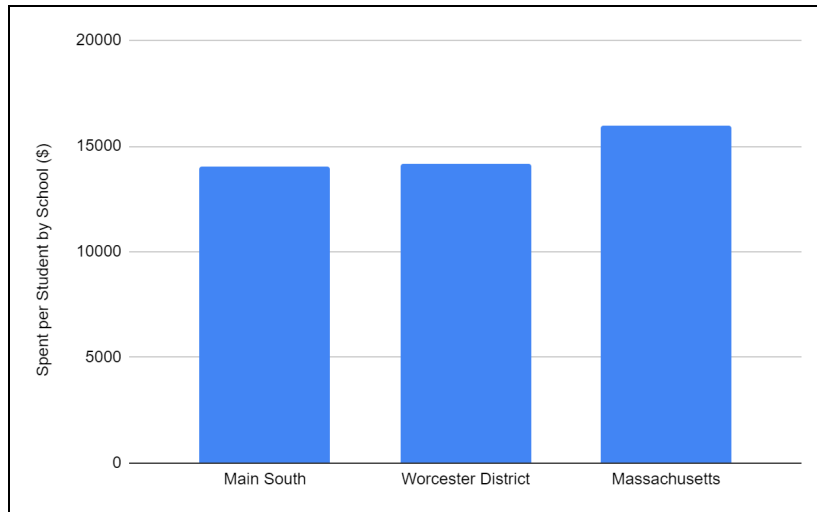


Figure 9: 2018-9 School Funding Per Student

² The Massachusetts Department of Elementary and Secondary Education divides the expectations into four categories: Exceeds Expectations, Meets Expectations, Partially Meets Expectations and Does Not Meet Expectation. The data represents the former two categories.

The six schools in Main South do face the challenge in terms of the academic performance in relation to the MCAS, the state standardized test. In comparison to Worcester and Massachusetts students, most Main South students have not reached expectations the state wants according to Figure 8. In fact, Main South students do worse on average than district and state schools, given that less than half of all Main South students don't fully meet expectations on any subject. School funding may be an issue, but Figure 9 shows otherwise, showing that 2018-9 spending in Main South compared to the district and state schools were essentially the same at around \$15000 spent per student (Massachusetts Department of Elementary and Secondary Education). As the previous sections notes, there is a correlation between the quality of art programs and academic performance. However, it is currently unknown what the quality of Main South art classes are. Art programs in the country in general have been less emphasized since the passing of the No Child Left Behind Act in 2002. But after the passage of the Every Student Succeeds Act in 2015, which transferred more educational power to the states, the Massachusetts Department of Education has made attempts to revise the art curriculum to give it more focus in schools. The revised 2019 curriculum "prioritized arts education by requiring every school district to include arts education data on their school and district report cards" (Liakos, 2019). This data supposedly is going to involve multiple media and focuses on art with significant cultural impacts on the community. As Lannan puts it:

The revised framework...involves four broad practices -- creating, presenting, responding and connecting -- across the five disciplines of dance, media arts, music, theater and visual arts. Its guiding principles include relevance to students, connection to other disciplines and to social-emotional learning, a variety of disciplines, styles, media and roles, engagement with the community and a focus on artistic intent (Lannan, 2018).

Despite the publication of a new arts curriculum, the core curriculum will always be the primary focus of schools. Given the benefits of the arts on youth development, community programming outside the school system is critical to ensuring that if there is a gap in arts education, that gap can be filled. There are current art organizations in the Main South that are looking to make up for the lack of art emphasis that have lasted over the past two decades.

2.5 Current Programming in Worcester

Our project's goal is to assist Main IDEA Worcester in informing their financial supporters about the availability of accessible art programs in Worcester. To accomplish this, an evaluation of youth arts programs in Worcester and their accessibility needs to be conducted. In this section, we will introduce the two main accessible art programs in Worcester, more specifically in the Main South area.

The first arts program that we are discussing is Main IDEA Worcester. This program perhaps is the most accessible compared to other programs in Worcester. The nonprofit organization has a mission to “[empower] youth by providing quality accessible arts programs to under-resourced communities”(Main IDEA, n.d.). Main IDEA serves approximately 1500 youth members and provides a completely free after school program. This program only requires the parents to register the student, through the school's main office (Main IDEA, n.d.). For instance, one of their after school programs targets 7-9th graders. This program provides the students with a snack, and they have a chance to receive homework help. This session of homework help is then followed by science and sports activities provided by partnering organizations, and dance, theater and art programs, provided by Main IDEA. Besides the after school program, the organization offers summer camps and art workshops at zero cost (Main IDEA, n.d.). All these programs usually serve youth within the age group of 6-17 years old.

The second program that aims to address the city's need for arts is Creative Hub Worcester, which is a non-profit organization. This organization is located on the border of the Main South area, it is specifically about one mile away from the center of Main South, which is approximately a five minutes drive . Creative Hub Worcester offers a “Department of Early Childhood Education and Care licensed after school program” at a lower price, compared to ArtReach. Furthermore, they accept Massachusetts State Childcare Vouchers, which makes their program more accessible to low income families. The price of their afterschool program is \$20 per student per day. They also offer a summer program that costs \$200 per week (Community Art Space: Creative Hub Worcester: Worcester, MA., n.d.). Besides the after school and summer programs, Creative Hub organizes workshops at a low cost of \$10, these workshops include, but

are not limited to, Jazz, mixed media and knitting workshops. Furthermore, they also occasionally offer free ones.

While these two programs are the main ones addressing the need for accessible art programs in Worcester, we will conduct additional research through our project to determine if other programs addressing this need are present in the area. By investigating other programs and their offerings, we will determine if the Main South community is in need of additional accessible arts programming.

2.6 Impacts of COVID-19

Main South offers a variety of art programs for the youth, but recently these art programs are experiencing tough financial times. On March 11, 2020, the World Health Organization declared COVID-19 a global pandemic. The United States President Donald Trump declared the pandemic a national emergency two days later (*Proclamation*). The government at the federal and the Massachusetts state level would encourage citizens to practice social distancing and to not hold mass gatherings. With people staying in their homes and most of the public funding going towards fighting the pandemic, local businesses and non-essential charities would experience a decrease in funding, including those in the art sector such as Main IDEA. The economic downturn was harsh for the art sector. By April 15, 2020, 700 organizations responding to Mass Cultural Council (MCC) surveys report more than \$264,000,000 in lost revenue since the pandemic began and more than 15,000 art sector employees are out of work in the state (Steiner, 2020b). The MCC revealed this data in order to inform state legislators who are proposing statutes that would help the art sector.

At the same time that art organizations are seeing a dramatic reduction in funding, access to arts programs has been drastically reduced as students move to remote learning. In Worcester, 14.3% of households do not have computer access and 22.1% do not have internet access (U.S. Census Bureau, 2020).

As overall Massachusetts state tax revenue is projected to drop by at least 25% when compared to 2019, a decrease in total of at least \$293 million, public funding for education may take a hit in response (Snyder, 2020). When public education budgets are cut, arts education tends to be cut. In the next couple of months, the need for youth arts education programs will

become even greater, at the same time that funding for non-essential sectors is becoming more scarce.

2.7 Conclusion

Arts programs easily create safe environments to help youth develop life skills by practicing arts. Access to these arts programs, both in transport and in price, is critical. However, schools, especially in neighborhoods such as Main South, cannot afford arts programs. There are non-school arts opportunities in Main South and Worcester but not enough to meet the need, which is exacerbated by the economic barrier created by COVID-19. In conclusion, Worcester and Main South need existing arts programs to be more accessible and new accessible arts programs. Our goal is to work with Main IDEA Worcester to provide vital information to help the organization make improvements to the state of programming in Main South. In the next chapter we will discuss our methodology.

Chapter 3: Methodology

This project's goal is to assist Main IDEA Worcester in informing their financial supporters about the availability of accessible art programs in Worcester, as an effort to make improvements to the current state of arts programming in Main South. This goal is to be met mainly through four objectives. Our first objective is to conduct an audit of available youth arts programs in Main South. The second objective is to assess the need gap for youth arts programs in Main South. The third objective is to assess the impact of COVID-19 on the accessibility and financial solvency of youth arts programs in Worcester. Finally, the project's last objective is making recommendations to Main IDEA about possible ways to expand the accessibility and funding of youth arts programming in Main South following the end of social distancing due to COVID-19.

3.1 Objective 1: Conduct an audit of available youth art programming in Main South

One of Main IDEA's primary goals for the project is to gain a more complete understanding of the current youth arts programming in Worcester, and to determine how accessible it is to their focus demographic of Main South Residents. Currently, no comprehensive listing for the majority of programming in the city exists, requiring us to compile one through secondary research and interviews with Worcester cultural groups on the activities they run and assist with funding. With the list formed, we can begin to evaluate how accessible individual programs are based on both research and community opinions gathered from online surveys.

3.1.1 Online Research

To develop a compilation of youth arts programming in Worcester we will conduct online research on previous smaller listings. Our primary focus in this research will be on dedicated or primarily arts programming, though groups who run significant arts events in addition to their normal activities will also be considered. Once the compilation has developed, we will shift to research how well the collected programs meet criteria for accessibility, focusing on cost and distance from the Main South Neighborhood. The full list of criteria is included in Appendix A. This method was chosen as the most feasible for us as the current COVID-19 pandemic prevents most field work and most dedicated programs have some online presence.

3.1.2 Interviews with Worcester Youth Art Program Directors and Community Leaders

Part of the issues with previous listings is they only considered well known organizations within Worcester or programs that are part of larger well-publicized groups, such as the Worcester Cultural Association. While these larger programs are important to the city's cultural landscape, they are not the only source of youth's art exposure. To help capture smaller groups and programs in our research, we will be conducting interviews with program directors, school and institution officials, and other community leaders. We will gain an understanding of what programs families may have access to that do not have a significant enough presence to be picked up in our initial searches but would be known to members of the community. Additionally, during these interviews, we intend to gather information on how accessible the programming we are directed to is based on interview experience.

According to the methods laid out in Johnson's 2016 text on community research, we intend to use semi-structured snowball style interviews to gather qualitative data from our interviewees. Semi-structured interviews are more conversational than strict surveying, using a series of planned open ended questions that allow subjects to explain and provide detailed answers, with probes and follow-up questions being used to expand on previous statements, rather than forcing the conversation in one direction. At the end of interviews, if it has not already come up, subjects will be asked what other programs they are aware of and who else in the community we should speak to, in a snowball process. The intent is to constantly expand the list of potential interviewees within an area of expertise to obtain a breadth of knowledge on the topic. (Johnson, 2016) While there will not be a strict set of questions asked, there is a general outline of the topics covered during an interview in Appendix B. Additionally, interviews will either be recorded via Zoom and then transcribed after, or hand transcribed simultaneously depending on the consent given.

We will analyze interviews with community leaders and program directors through coding, looking for patterns related to program accessibility and key features, commonly known programs, program information, and outreach methodology. This analysis will provide qualitative data to feed into the assessment of individual programs.

3.2 Objective 2: Assess the need for additional arts programming in Main South

3.2.1 Interviews with Main South Resident and Leaders

We will conduct interviews with residents from Main South - parents, teachers, youth art program directors - to assess the need for youth art programming in the area. These interviews will allow us to collect data on the public's opinion of the current art programming in Main South, and the areas most critically lacking.

While conducting these interviews, we will record them after obtaining consent from the interviewee to improve the ease of transcription. Sample interview questions are available in Appendix A.

3.2.2 Online Surveys

As a follow-up to our research and interviews, we will be conducting an online survey targeted at parents, teachers, and other Main South Community members to expand the data used to evaluate the current need for more youth arts programming. While program directors and community leaders are reliable sources to provide an overview of issues in Main South and more generalized information, to flesh out our understanding of how people interact with their local programming engaging with the public is useful. Additionally, given the current pandemic, hosting the survey online is more feasible than distributing a paper survey. Additionally, online surveys would reduce costs, as there are several free and institutional resources to host forms online.

The online surveys will provide both quantitative and qualitative data on the communities' interaction with various programs by allowing survey takers rate program features on numerical scales and provide comments of their opinion on the program. Sample survey questions can be found in Appendix C.

3.2.3 Assessment of Success of Current Youth Art Programming in Main South

Determining the need for additional youth art programming in Main South requires the assessment of existing programming. We will do this by developing a table for several key factors that serve as indicators of a program's success. Following a 2006 study by Sandra Ruppert, a prominent writer specializing in arts education, many of the factors we plan to collect

are the time and frequency of classes, number and variety of courses, number of participants, and number of certified arts educators involved. A full list of criteria is available in Appendix C.

With this table, we can determine where current youth art programming available to Main South needs improvement. Through determining these areas of improvement, we will be able to assess how successful the current arts programming is and what is needed to provide Main South with strong youth arts education programming.

3.3 Objective 3: Assess the impact of COVID-19 on available funding and accessibility of youth art program

3.3.1 Interviews with Main South CDC and Worcester Youth Art Program Directors

In parallel with our community interviews on the available arts programming and their accessibility, we will also be conducting expert interviews with members of the Main South Community Development Center (MSCDC) and youth arts program directors, such as the directors of Creative Hub Worcester and Main IDEA, on how the COVID-19 pandemic has impacted the funding, planning, and viability of programming in Main South. Additionally, we may contact the Greater Worcester Research bureau, the Greater Worcester Chamber of Commerce, and the Massachusetts Cultural Council. Many of the program directors interviewed will have also been interviewed on programming accessibility, and the interviews will follow a similar semi-structured style. If possible, we will collect both data on the impact of COVID-19 and accessibility in the same session to minimize the time commitment from interviewees. Sample interview questions can be found in Appendix D.

To analyze interview data, we will code our transcripts for the general impact of COVID-19, how future operations, scale, sustainability, and attendance are likely to be affected, how program participants are responding, and what their biggest worries on COVID-19 are, in relation to the program, given in Appendix D .

3.3.2 Investigation of Worcester Youth Art Programming Funding Pre and Post COVID-19

One of the major areas impacted by COVID-19 predicted by our sponsor is funding for youth programming in general and specifically arts programming as families, charities, donors, and grant givers move their focus away from enrichment towards meeting basic needs. While in the short term, this funding shift is the only responsible choice, we suspect that there will be

long-term negative impact on funding for youth arts programming. To help Main IDEA mitigate the impact of this funding shortage we will be collecting information on the funding status of arts sector funding both before the widespread of the COVID-19 virus and the status several months into the pandemic. Our primary sources will be art sector reports on program cancellation, job loss and funding, alongside Massachusetts State tax revenues, projections, and budgets.

3.4 Objective 4: Make recommendations to Main IDEA about expanding the accessibility and funding of youth arts programming in Main South following the end of social distancing due to COVID-19

After analyzing the data collected in the previous objectives we will determine the most critical elements of accessibility for programming in and around Main South, making recommendations to improve both Main IDEA's operations and the general health of arts programming in the neighborhood following the impacts of the COVID-19 pandemic. Additionally, materials will be provided to help Main IDEA make use of the data and present gathered information to a non-technical audience - primarily donors.

3.4.1 Identifying Recommendations for Main IDEA

We will use data analysis to identify and make recommendations on how to correct the most critical areas for improvement of youth art programs in Main South. We will use either a score threshold or determine between 3 and 5 of the weakest categories to identify these areas. Depending on how and what features are the most important, we will develop a weighted decision matrix or a binary system rating that identifies whether a feature is present or not. If the features have a varying impact on accessibility, such as the cost of a program being more relevant than whether or not it offers snacks, we will use a weighted decision matrix. If the features all have similar impacts on accessibility, we will use a binary system. After determining which system we will use, we will assess the overall state of accessible programming in Main South and Worcester.

3.4.2 Data Tools (Spreadsheet and Map)

We will provide Main IDEA with two major ways to examine the information we will collect, in addition to the raw data: an almanac spreadsheet containing the names and evaluations of all the programming we will examine, and a map displaying the locations of

programming relative to the Main South Community and their evaluated accessibility. The primary information for both tools will be obtained from objectives 1 and 2.

The almanac spreadsheet will consist of a sortable index that will track the cost of programs, their distance from Main South, whether food is provided to participants, and other quantitative and qualitative accessibility metrics as defined in Appendix A.

The map of programming will act as a visual method of displaying both how accessible programs are and their density outside of the Main South Neighborhood through a number of methods: colored pins, indicating the accessibility of programs on a scale, regions, highlighting the city of Worcester the Main South neighborhood and important analytical areas within the neighborhood, and informational notes providing any necessary context on a digital map.

3.4.3 Summary of Benefits of Arts Education, Need for Youth Art Programming in Worcester, and the Impact of COVID-19 on Youth Art Programming Accessibility and Funding

The benefits of art education on youth and the impact of COVID-19 on funding of youth art programs in Main South will be summarized in an infographic/report/presentation, prepared for a non-technical and non-expert audience. It will cover the benefits of arts education and exposure research from the background, an overview of the current needs for arts programming in the Main South community and how well the need is being met, and analyses of how COVID-19 will impact accessibility of programming, with research conducted for objectives 1-3 being the primary sources. The focus will be on providing reusable and digistable statistics, images, and diagrams in the summary, for our sponsor to use while speaking with donors or seeking grants.

3.5 Potential Obstacles and Flaws

3.5.1 Obstacles

There are two prominent obstacles to our research, primarily due to COVID-19. Interviewing parents from Main South will be difficult; we do not have direct access to them, and many families in Main South do not have easy access to technology or the internet. This obstruction can make the audit of Main South's needs less current. Secondly, COVID-19 will make field research difficult. Engaging with the community at Main IDEA would have allowed us to interact with participants, which could have led to interviews with involved families.

Because of the quarantine, we need to find alternate methods to contact families, such as conducting online research and doing interviews with youth art program directors.

3.5.2 Flaws/Issues

There are several flaws in our research. Particularly, for COVID-19, the collected information, especially data about predictive measures, may become out of date. Thus, this project may contain obsolete information regarding COVID-19. Secondly, because of our difficulty in accessing parents from Main South, there may be a low number of both interviewees and online survey participants. This would skew the data about Main South's need for art programming. Thirdly, the use of online surveys introduces numerous issues. Online surveys require internet access. Thus, online surveys may not be reachable by low-income families in Main South, who are part of our target demographic. Online surveys also introduce voluntary response bias, non-response bias, and undercoverage bias, which can skew data.

3.6 Ethical Considerations

Our project will be submitted to and reviewed by the WPI Institutional Review Board (IRB). We will conduct anonymous data collection using both online surveys and interviews. We will ask survey participants and interviewees if they consent to our usage of their responses and seek permission before publishing any names or identifying information in our report. We are not targeting a vulnerable population, so we will use a verbal consent process. Additionally, we will also inform survey participants and interviewees that their participation is voluntary and that they may withdraw or choose not to answer at any time.

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Appendices

Appendix A: Accessibility & Need Criteria

Cost (\$/Week)

Travel Distance (Miles from Home/School)

Travel Availability (On public transit route/Car only)

Transit Provided

Frequency of Classes (Meetings/[week, month, year])

Time of Classes (Weekends/Evenings/After School)

Variety of Courses

Presence of Art Professionals

Presence of Education Professionals

Food and Snacks Provided

Peer Support

Youth Leadership

Art Type Variety

Group Work

Public Presentations

Parent Involvement

Environment Safety

Appendix B: Accessibility Interview Questions

Interview Target Demographic: Program Directors and Institution Officials

Location: Online (Zoom)

Purpose of Interview: Gain an understanding of the programming available in Main South that isn't necessarily advertised online.

Preamble:

Hello. Thank you for meeting us. We want to clarify that we are a student research team from Worcester Polytechnic Institute working with the local organization Main IDEA to examine the current state of youth arts programming in Main South and understand the impact COVID-19 will have on the sector.

Your participation is voluntary, and you may choose to end your interview or withdraw at any time. Additionally, your responses will remain anonymous, and your name or other identifying information will not be published in any project reports or publications.

Our team would like to record this interview to make transcription easier. You may still participate in the study without agreeing. Is making a recording acceptable?

If you have any questions on our research, you may contact the team at [gr-Main IDEA-e20@wpi.edu](mailto:gr-MainIDEA-e20@wpi.edu). If you have any questions regarding your rights as a research subject, you may contact Worcester Polytechnic Institute' review board at IRB@wpi.edu.

Questions:

- How are you doing today?
- How did you become involved in youth (arts) programming and community development?
- Can you describe the responsibilities of your role within your organization?
- Can you provide some more details on the operation of your organization?

- Probe on missing accessibility information: Cost, transportation, time, location, target demographic, number of people served, age group, availability of multilingual documents, etc.
- From our research, we've found a number of factors that can impact the overall accessibility of programming to the public. Can you describe what factors are the most important for successful outreach in Main South?
 - Probe on accessibility criteria, if not mentioned.
- Are you aware of any smaller programs or groups that offer youth arts programming in or near Main South that aren't well advertised or available online, such as church groups or local clubs?
 - Where did you first encounter these programs?
 - Are these available programs successful in providing art education to children?
 - Are they accessible?
 - Are children interested in participating in these programs?
 - Would Main South benefit from having a larger variety of youth art programs?
- Can you think of anyone else we should speak to about our research?

Closing:

Thank you for taking the time to speak with us. If you have any questions on our study or wish to receive a copy of your interview transcript or our research you may contact the team at gr-MainIDEA-e20@wpi.edu.

Have a nice day/afternoon/evening, and thank you again.

Interview Target: Community Leaders (Not Directly Involved in Programming)

Location: Online (Zoom)

Purpose of Interview: Gain an understanding of the programming available in Main South that isn't necessarily advertised online.

Preamble:

Hello. Thank you for meeting us. We want to clarify that we are a student research team from Worcester Polytechnic Institute working with the local organization Main IDEA to examine the current state of youth arts programming in Main South and understand the impact COVID-19 will have on the sector.

Your participation is voluntary, and you may choose to end your interview or withdraw at any time. Additionally, your responses will remain anonymous, and your name or other identifying information will not be published in any project reports or publications.

Our team would like to record this interview to make transcription easier. You may still participate in the study without agreeing. Is making a recording acceptable?

If you have any questions on our research, you may contact the team at [gr-Main IDEA-e20@wpi.edu](mailto:gr-MainIDEA-e20@wpi.edu). If you have any questions regarding your rights as a research subject, you may contact Worcester Polytechnic Institute's review board at IRB@wpi.edu.

Questions:

- How are you doing today?
- What would you say you do in Main South?
- How did you become involved with community development?
- In your experience, what are the key factors that prevent people from accessing youth programs in Main South?

- Do you know of any smaller groups that offer youth arts programming that are necessarily available or well advertised online, such as church groups or local clubs?
 - How well do you think these programs succeed in serving their community?
 - What areas do you feel these programs have the largest gaps or issues in - where can they improve?
 - Would Main South benefit from having a larger variety of youth art programs?
 - What kind of program would they want?
- Can you think of anyone else we should speak to about our research?

Closing:

Thank you for taking the time to speak with us. If you have any questions on our study or wish to receive a copy of your interview transcript or our research you may contact the team at gr-MainIDEA-e20@wpi.edu.

Have a nice day/afternoon/evening, and thank you again.

Appendix C: Online Survey Questions

Interview Target Demographic: Program Directors and Institution Officials

Location: Online (Form)

Preamble:

Hello. Thank you for taking the time to look at this survey. We want to clarify that we are a student research team from Worcester Polytechnic Institute working with the local organization Main IDEA to examine the current state of youth arts programming in Main South and understand the impact COVID-19 will have on the sector.

By filling out this survey, you are affirming that you are over the age of 18 and agree to allow the information collected here to be used in our study.

Your participation is voluntary, and you may choose to request that your survey be withdrawn. Additionally, your responses will remain anonymous, and your name or other identifying information will not be published in any project reports or publications.

If you have any questions on our research or wish for your information not to be used, you may contact the team at gr-Main IDEA-e20@wpi.edu. If you have any questions regarding your rights as a research subject, you may contact Worcester Polytechnic Institute's review board at IRB@wpi.edu.

Questions:

- Please provide your first and last initial.
- Are you located in Main South?
- Do you make use of any youth programs in or outside of the neighborhood?
 - If yes→ What programs?
 - If no→ What's preventing you from participating?
- Do you feel Main South would benefit from more access to youth arts programming?
- What is your opinion of these programs?
 - How aware of the programs are you?

- Programs asked about: Main IDEA, Art Reach, CreativeHub Worcester, and programs listed they participate in
- How costly do you feel the program is to attend?
 - How much does the program cost?
- How far away is the program?
 - Is this too far to travel?
 - How far would you be willing to travel for a program?

Closing:

Thank you for taking the time to fill out this survey. If you have any questions on our research you may contact the team at gr-Main IDEA-e20@wpi.edu.

Appendix D: COVID-19 Impact Interview Questions

Interview Target: Program Directors

Location: Online (Zoom)

Purpose of Interview: Gain an understanding of the programming available in Main South that isn't necessarily advertised online.

Preamble:

Hello. Thank you for meeting us. We want to clarify that we are a student research team from Worcester Polytechnic Institute working with the local organization Main IDEA to examine the current state of youth arts programming in Main South and understand the impact COVID-19 will have on the sector.

Your participation is voluntary, and you may choose to end your interview or withdraw at any time. Additionally, your responses will remain anonymous, and your name or other identifying information will not be published in any project reports or publications.

Our team would like to record this interview to make transcription easier. You may still participate in the study without agreeing. Is making a recording acceptable?

If you have any questions on our research, you may contact the team at [gr-Main IDEA-e20@wpi.edu](mailto:gr-MainIDEA-e20@wpi.edu). If you have any questions regarding your rights as a research subject, you may contact Worcester Polytechnic Institute' review board at IRB@wpi.edu.

Questions:

- How are you doing today?
- How did you become involved in youth (arts) programming and community development?
- Can you describe the responsibilities of your role within your organization?
- How has COVID-19 impacted the operation of your organization?
 - How has it impacted the funding of your organization?

- How has this change in funding impacted the programs you offer?
- How has it impacted the scale at which you plan to operate in the future?
 - Do you plan to reduce activities?
- How has it impacted your program planning?
- How has it impacted your ability to keep offering programming into the future?
 - How do you expect the virus to impact future attendance?
- Has your organization looked into or implemented any online or alternative methods of accessing the program during social isolation?
- How are program participants responding to changes in programming?
- Does your organization have any other major worries about COVID-19?

Closing:

Thank you for taking the time to speak with us. If you have any questions on our study or wish to receive a copy of your interview transcript or our research you may contact the team at [gr-Main
IDEA-e20@wpi.edu](mailto:gr-MainIDEA-e20@wpi.edu).

Have a nice day/afternoon/evening, and thank you again.

Appendix E: Timeline

Task	Week							
	PQP	1	2	3	4	5	6	7
Pick and contact interviewees	█							
Research and compile arts programming in Main South	█							
Assess community views on programming		█						
Expert interviews on community programming capacity and needs			█					
Expert interviews on impacts of COVID-19			█					
Analysis accessibility of Main South programming				█				
Examine pre & post COVID-19 funding and projections	Pre-COVID-19 █					Post-COVID-19 █		
Assess impact of COVID-19 on arts funding & programming						█		
Create layman-accessible findings summary						█		