Stakeholder Engagement Analyses of Residual Risk Program for National Emission Standards for Hazardous Air Pollutants (NESHAP)

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Motivation

- Stakeholder engagement is an imperative in policy and regulatory development, yet there is little understanding of the impact that engagement has on final decision making. This imperative is included in most definitions and goals for environmental justice.
- Effective engagement requires considerable time and resource allocation from both policy makers and stakeholder. Better understanding of engagement outcomes can shape when and where to focus limited resources.

Project Description

- This is a pilot effort for determining methodology and measurements for evaluating effectiveness of public engagement final regulatory actions using data from risk-based standards for air toxics.
- Three interrelated metrics will be studied:
 - Known human health risk's influence on outreach and engagement (O&E) efforts; engagement rationale strategy (ERS)
 - O&E's contribution to increased public participation; engagement increase (EI)
 - Public participation's influences on final standard setting; engagement efficacy (EE)
- Wilcoxon signed rank testing will be used for the ERS, ANOVA for the El and simple regression for the EE.

Context

- Federal standards development and how to best engage is a difficult space to navigate for the general public.
- Government agencies are increasing outreach and engagement (O&E) efforts, particularly for environmental justice considerations
- Better understanding of the return on investment is needed to see If O&E is yielding positive benefits to engaged communities.



Developing Metrics for Measuring Rationale, Increase, and Efficacy of Stakeholder Engagement in **Risk-Based Environmental Standards**





	blic's role in any public participation process. The Spectrum is used internationally, and it is found in public participation ns around the world.					
	INCREASING IMPACT ON THE DECISION					
	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER	
PUBLIC PARTICIPATION GOAL	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decisio making in the hands the public.	
PROMISE TO THE PUBLIC	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.	

Table 1: IAP2 Spectrum of Public Participation, the spectrum will be used to categorize agency engagement efforts for NESHAP rules

Project Deliverables

- An expected output is the testing of metrics on efficacy of public participation methods in increasing stakeholder participation, and potentially the development of metrics that become a framework for measuring efficacy of O&E efforts.
- All results will be included in one or more manuscripts that share key findings and future recommendations.

Potential Impact

- This work will test whether community engagement can be measured as a function of increased public participation, and if meaningful engagement can be seen as a function of reduced environmental health burden based on considerations from citizen inputs.
- This work will contribute to the limited literature on measurement of effectiveness of engagement in influencing final environmental health standards, and if successful, the ERS, El and EE metrics can be applied to many other programs seeking the measure O&E efficacy.

References and/or **Acknowledgements**

- Pitt Momentum Funds
- Potential EPA/ OAQPS
- IAP2 Spectrum of Public Participation Spectrum;
 - https://www.iap2.org/page/pillars