

WILMAPCO Council:

MEMORANDUM

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WILMAPCO Executive Director
Tigist Zegeye

To: Members of WILMAPCO's Air Quality Subcommittee (AQS)
From: Bill Swiatek, Senior Planner
Date: April 6, 2017
Re: **Air Quality Subcommittee Conference Call**
Date: Thursday, April 13, 2017
Time: 10:00 a.m.
Place: Conference Call

Dial: 888-204-5984
Code: 1716749

A G E N D A

- 1. Acceptance of the notes from the March 9 meeting**
- 2. FY 2019 CMAQ Project Prioritization – B. Swiatek**
The AQS will review the draft FY 2019 CMAQ prioritization list.
- 3. Air Quality Scoring for New Projects in the Draft FY 2019 TIP – B. Swiatek**
The AQS will provide draft air quality scores for a few projects new to the TIP.
- 4. Air Quality Conformity Timeline Discussion – B. Swiatek**
The AQS will discuss the timing of the next planned conformity determination(s).
- 5. Other**

Air Quality Subcommittee (AQS) Meeting Notes

March 9, 2017

Attendees

Gregory Becoat, EPA
Kevin Black, FHWA (teleconference)
Thurm Brendlinger, CAC
Alex Brun, MDE (teleconference)
Lauren DeVore, DNREC
Lindsay Donnellon, FHWA
Heather Dunigan, WILMAPCO
Jay Gerner, DelDOT
Valerie Gray, DNREC
Jacob Guise, WILMAPCO
Renaë Held, DNREC
Jolyon Shelton, DNREC
Bill Swiatek, WILMAPCO
Colleen Turner, MDOT (teleconference)
Tigist Zegeye, WILMAPCO

Acceptance of the Notes from the December 15 Meeting

- See: www.wilmapco.org/aqs
- The notes were accepted without corrections or clarifications.

Update on 2015 Ozone Implementation Rule - G. Becoat/L. DeVore

- Mr. Becoat provided a fact sheet about the proposed rule.
- Mr. Becoat provided a presentation on the 2015 Ozone National Air Quality Standards Implementation Rule.
 - See: www.wilmapco.org/aqs
- Mr. Becoat went over key topics such as: classification thresholds and attainment dates, revoking the 2008 National Ambient Air Quality Standards (NAAQS), submitting nonattainment area and Ozone Transport Region (OTR) State Implementation Plan (SIP) elements, where Delaware falls, and transportation conformity.
- The Clean Air Act (CAA) directs the Environmental Protection Agency (EPA) to set and review air quality standards for common pollutants known as “criteria pollutants,” which the agency has identified based on their likelihood of harming public health and welfare. The EPA established air quality standards for ozone in 1979. The EPA subsequently revised the ozone standards in 1997, 2008 and 2015

based on the most recently available scientific studies at the time. In October 2015, the EPA strengthened the ozone NAAQS from 75 parts per billion (ppb) to 70 ppb to ensure the protection of public health and welfare.

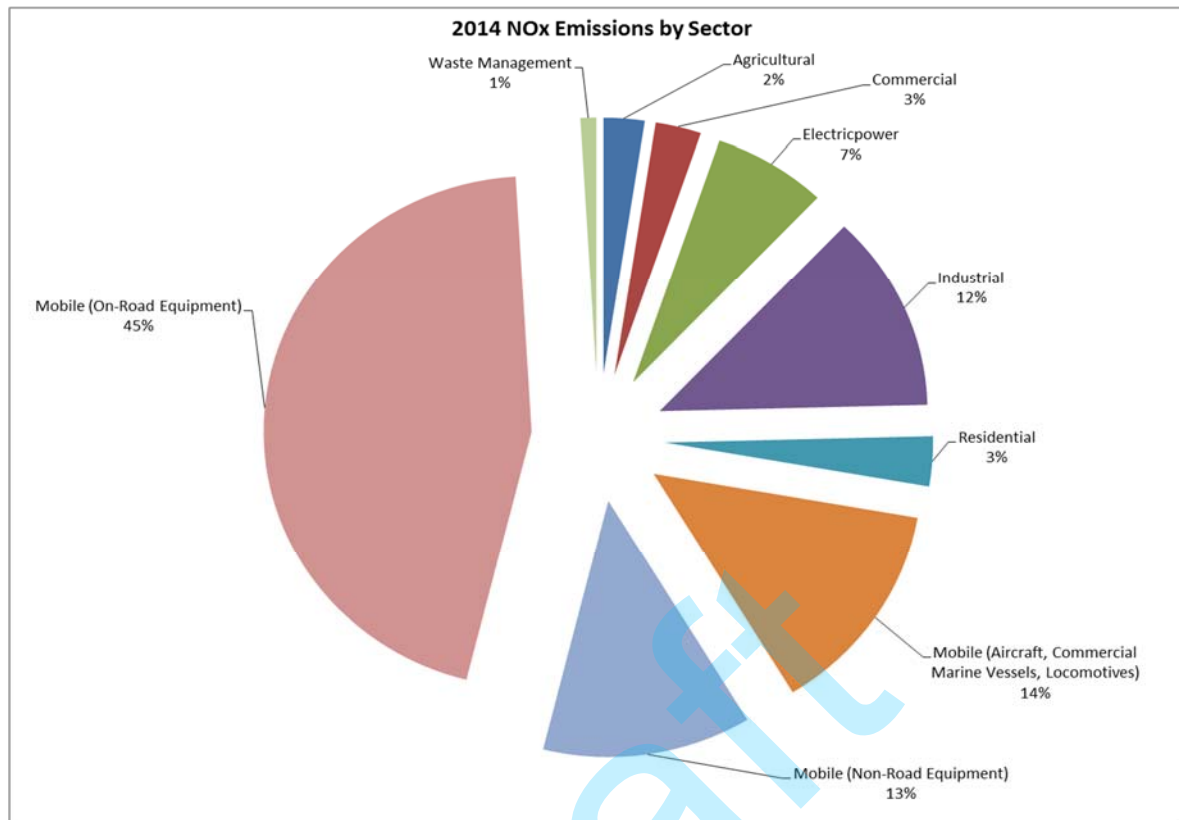
- Mr. Becoat informed us that the agency follows a process by which states recommend area designations to the EPA. The EPA then evaluates those recommendations, and air quality data and makes its proposed and final determinations. Ozone nonattainment areas are classified by the severity of their air quality monitoring data.

Area class		Percent above 1-hr ozone NAAQS	8-hour ozone design values (ppm)		Proposed attainment date (years after designation)
			2008 NAAQS (0.075 ppm)	2015 NAAQS (0.070 ppm) (<i>proposed</i>)	
Marginal	From up to ¹	0.833 15	0.076 0.086	0.071 0.081	3
Moderate	From up to ¹	15 33.333	0.086 0.100	0.081 0.093	6
Serious	From up to ¹	33.333 50	0.100 0.113	0.093 0.105	9
Severe-15	From up to ¹	50 58.333	0.113 0.119	0.105 0.111	15
Severe-17	From up to ¹	58.333 133.333	0.119 0.175	0.111 0.163	17
Extreme	Equal to or above	133.333	0.175	0.163	20

Note 1: But not including.

- Mr. Becoat said that based on final 2013-2015 design values, it is anticipated that a majority of nonattainment areas would be classified Marginal for the 2015 standards.
- Mr. Becoat proposed two alternatives to revoking the 2008 ozone NAAQS:
 - Option 1 is consistent with revocation of the 1997 ozone NAAQS, and would trigger a set of protective “anti-backsliding” requirements for areas designated nonattainment for the 2015 standards that have not yet attained the 2008 NAAQS upon the effective date of its revocation.
 - Option 2 parallels the approach most recently used for the Particulate Matter 2.5 (PM_{2.5}) NAAQS, and is consistent with the revocation approach used previously for lead and sulfur dioxide NAAQS. Anti-backsliding requirements would not be needed because the 2008 ozone NAAQS would be revoked only for those areas that have attained the 2008 standards.

- Mr. Becoat spoke of some of the requirements if you are nonattainment. They propose to retain the existing approach to calculating deadlines for submitting revised SIP elements under the 2015 NAAQS, for states with nonattainment areas and states in the ozone transport region.
 - States with nonattainment areas must submit various SIP elements required under CAA section 182 based on their statutory timeframes, measured from the effective date of area designations for the revised ozone NAAQS.
 - Similarly, OTR states must submit SIP revisions based on their statutory timeframe under CAA section 184, measured from the effective date of area designations for the revised ozone NAAQS.
 - Mr. Becoat stated that Delaware recommended two options:
 - Option 1: New Castle County (only violating county in the DE) included in large multi-state nonattainment area. Recommended borders of the area include: the entire state of DE, IL, IN, KY, MD, MI, MO, NJ, NY, NC, OH, PA, TN, VA, VA, WV, and WI.
 - Option 2: A standalone nonattainment area for New Castle County.
 - Mr. Becoat informed us that the EPA was sued by Delaware on a 1 year extension of the attainment date.
 - Mr. Becoat said that under option 2, if the standard is completely revoked, there will no longer be transportation conformity necessary for the 2008 ozone standard.
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- Ms. DeVore provided a presentation on the Proposed Implementation of the 2015 Ozone Standard and Related Impacts to Transportation Conformity.
 - See: www.wilmapco.org/aqs
 - Ms. Devore stated that Section 109 (d) of the Clean Air Act requires the agency to review each NAAQS every five years.

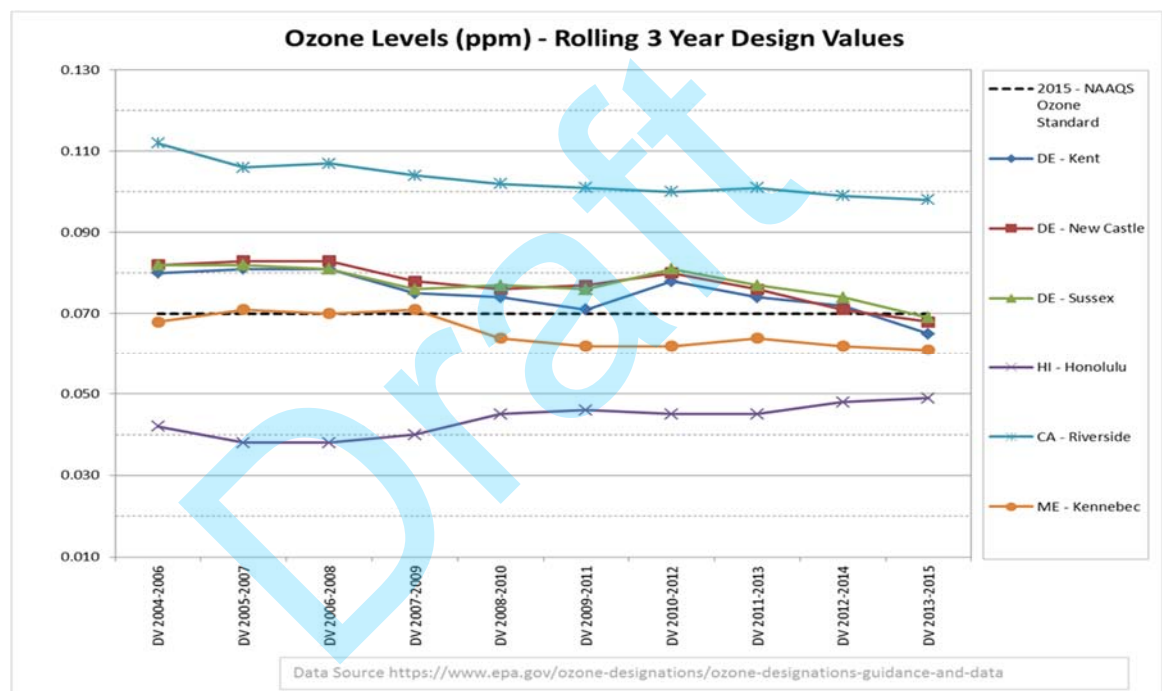


This figure shows that the transportation sector accounts for the majority (72%) of emission numbers.

- Ms. DeVore recommended that New Castle County would be designated as non-attainment, while Kent and Sussex would be designated as attainment.
- Ms. DeVore informed us that the proposed rule published for public comment on November 17, 2016. The comment period closed on February 13, 2017.
- Ms. DeVore informed us that if Option 1 is selected, conformity would no longer apply in Sussex.
 - If Option 2 is selected, conformity would apply and an approved maintenance plan would be submitted for 2008 standard.
 - A request for re-designation will be submitted to EPA, after a clean data determination for Sussex. Re-designation to attainment will be approved once all applicable attainment and maintenance plan requirements are fulfilled.
- Mr. Becoat chimed in saying a common thing they see with re-designation requests is they typically establish more modern budgets and those once approved within a maintenance plan would be required to pass for future transportation

conformity. Once areas go through both ten-year maintenance plans, transportation conformity is no longer necessary.

- Ms. DeVore said that designations are based on what are known as design values. These design values are measured relative to the NAAQS and are used to designate an area. These are based on a 3-year rolling average. Every year new 3-year design value is published and it is determined from the 4th highest ozone value from each ozone season are added up, averaged (divided by 3) and then truncated.
- Ms. DeVore showed a graph that displayed the Ozone levels (ppm) by rolling 3-year design values. Below is a copy of the graph:



- Updated analysis and plan deemed adequate by the Federal Highway Administration/Federal Transit Administration (FHWA/FTA). The conformity determinations are due by October 1, 2018.
- Ms. DeVore informed us that the 2019 Regional Transportation Plan (RTP) will require that a new (updated) conformity analysis be completed.
- Ms. DeVore concluded that Delaware Department of Natural Resources and Environmental Control (DNREC) recommended the EPA consider pursuing Option #2. She then stated what would happen under each option in Delaware.

- Under Option #1 areas that were designated as Non-Attainment for the 2008 ozone NAAQS may not be required to develop and be bound by maintenance plans.
 - Anti-backsliding requirements for 2008 ozone NAAQS unnecessary.
- Option #2 parallels revocation of 1997 PM2.5 standard.
 - Negative impacts for Delaware's air quality due to Ozone Transport.
- Ms. Zegeye asked if we have to coordinate with Delaware Valley Regional Planning Commission (DVRPC) and South Jersey every time we do conformity for ozone. Mr. Becoat responded: "To be consistent with how we ruled PM2.5, continue doing whatever you've done with ozone in 2008 and 1997. They are not going to revoke what you are currently doing such that you don't impact other transport areas".
- Ms. Dunigan suggested that a conformity ahead of adopting the RTP and RTP be released to the public comment normally with the conformity in November. Ms. Zegeye said their intentions are to do conformity and public outreach together.
- Mr. Becoat and Ms. DeVore informed everybody that the due date for the conformity analysis is set in stone, and there is no flexibility.
- Ms. Zegeye suggested we do the Transportation Improvement Plan (TIP) and the RTP as we normally do, so that it would buy time to do the conformity for the 2050 RTP after the requirements.

Eden Park Community Air Quality Study – R. Held

- Ms. Held provided a presentation on the Eden Park Community Ambient Air Quality Study.
- See: www.wilmapco.org/aqs
- Ms. Held informed us of their primary and secondary objectives.
 - Primary Objective: Investigate local ambient air concentrations of certain pollutants to evaluate the local conditions.
 - Secondary Objective: Determine if permanent monitoring sites are representative of local conditions or whether there is need for local monitoring.
- Ms. Held stated that the moveable monitoring equipment was placed at the city of Wilmington Municipal Service Complex because this was an area where they had received complaints about fugitive dust. There is also a monitor at local waste.

- Ms. Held displayed two graphs, a sulfur dioxide hourly average concentration and a nitrogen dioxide hourly average concentration at the Moveable Monitoring Platform (MMP) and the permanent sites in Wilmington and Delaware City.
- Both graphs show the SO₂ and NO₂ concentration are well below the standard.
- A discussion took place about whether or not the monitors were picking up the emissions from the bus service.
- Ms. Held displayed another two graphs, showing the PM_{2.5} 24 hour average concentrations as well as the 24 hour average Total Suspended Particulate (TSP) concentrations at MMP, Wilmington and Kent County sites.
- The graph for PM_{2.5} show their concentrations were below the standard, while the graph of TSP shows levels were in exceedance of the state's secondary standard. The secondary standard is a welfare standard, not a health standard.
- Ms. Held stated that when TSP became a concern they have been trying to identify ways to reduce emissions. Their focus is on industrial facilities near Eden park.
- Mr. Shelton asked if it would be possible to analyze the dust to figure out where it is coming from. Ms. Held informed him that it is possible, and that they are sending samples out to see if they can distinguish the components and match them up with a source in the area.
- Mr. Swiatek asked if PM₁₀ would be an issue separately. Ms. Gray informed him that the primary concern is the TSP because we have a state standard. The EPA revoked their TSP standard when they adopted PM_{2.5}. DNREC is trying to look at all their data to see what potential attribute there is to smite the dust; its most likely crustal.
- Mr. Brendlinger asked if you could match any of the camera views with any of the high incidents. Ms. Held responded that she believes they can match up dust from some of the garbage trucks that have driven by. We are able to see that a majority of trucks aren't tarping themselves; as they are required to do by law. Mr. Swiatek said it would be interesting if you could match up the meteorology of that day as well. Ms. Grey said that all the anemometer data is present, but still needs some analysis. DNREC hopes to have the van there to capture information during all the seasons.
- Mr. Brendlinger asked if there were any other hot spots in the state that they were going to use the mobile monitoring equipment for. DNREC later describes the future use of their MMP stating: "We are going to use MMP to identify new areas where we can work with local communities to find solutions to PM problems".

- Mission of Delaware PM Advance: Work together with communities and industry to reduce particulate matter emissions and protect the public. DNREC has a proactive program that helps states meet EPA PM standards and continue to improve air quality. Currently, some of their projects involve: monitoring PM in Eden park using MMP, participation in Route 9 corridor master plan, and replacement in diesel school buses.
- Mr. Swiatek stated a recommendation of the Route 9 Corridor Master Plan involves better separating industrial from residential uses in this area. A key concept involves relocating both the Hamilton Park and Eden Park Gardens neighborhoods, while phasing out industry to their south.
- Mr. Brendlinger asked if PM from wood smoke was looked into on a residential basis. Ms. Grey informed him there is a ban on open burning during ozone season. We generally see wood smoke from regional forest fires.
- Ms. Zegeye asked if there were other ways to reach out to the public about these situations rather than just the website. DNREC said that for future references they will be looking at complaints and holding public outreach sessions.

Other

- There was no other business addressed.

AQ OVERALL PRIORITIZATION SYSTEM

3

Project expected to moderately or significantly improve air quality. Project types include:

- a. fixed-route bus and train service expansions
- b. public transit technology improvements
- c. major non-recreational nonmotorized system expansion (not tied to a roadway project which would increase vehicle capacity)
- d. diesel engine replacements
- e. alternative fueling stations
- f. park-and-ride lot expansions
- g. carpooling schemes

1

Project expected to slightly improve air quality. Project types include:

- a. fixed-route bus and train service replacements
- b. minor non-recreational nonmotorized system expansions (not tied to a roadway project which would increase vehicle capacity)
- c. major non-recreational nonmotorized system maintenance (not tied to a roadway project which would increase vehicle capacity)

0

Project not expected to impact air quality. Project types include:

- a. roadway projects which do not add capacity
- b. park-and-ride lot maintenance
- c. rail preservation
- d. paratransit expansion and maintenance
- e. recreational nonmotorized system expansion/maintenance
- f. minor non-recreational nonmotorized system maintenance (not tied to a roadway project which would increase vehicle capacity)

-1

Project expected to slightly worsen air quality. Project types include:

- a. roadway projects which add capacity but are non-regionally significant, including those with a non-recreational nonmotorized system expansion component

-3

Project expected to moderately or significantly worsen air quality. Project types include:

- a. roadway projects which add capacity and are regionally significant, including those with a non-recreational nonmotorized system expansion component

Old Capitol Trail: Newport Rd to Stanton Rd

Draft AQ Score: **+1**

The intersection of Newport Road at OCT will be rebuilt as a four-leg roundabout, while the intersection of Stanton Road at OCT will be rebuilt as a three-leg roundabout. Drainage improvements will be incorporated with the rebuilding of the Newport Road intersection, along with marked crosswalks and new sidewalks in the immediate vicinity of both intersections. A new sidewalk will be constructed on the north side of OCT between Stanton Road and the Red Clay Creek Bridge. Pedestrian-scaled decorative lighting will also be added along both sides of OCT between Newport Road and Stanton Road. These projects were key recommendations in the 2014 Marshallton Circulation Study (www.wilmapco.org/marshallton), and have strong community support. (FY 2018 TIP)

Denny/Lexington Parkway Intersection

Draft AQ Score: **0**

Intersection improvements to address neighborhood transportation operational issues. A roundabout may be considered. (FY 2018 TIP)

Middletown Park and Rides

Draft AQ Score: **+3**

Middletown Park and Ride: Development of new park and ride lot(s) in Southern New Castle County, likely near the future interchanges of the new US 301. Locations may include Jamisons Corner Road, Summit Bridge Road, and Levels Road. (DTC)

SR 896: US 40 to I-95, add third lane

Draft AQ Score: **-3**

No project description. (not in FY 2018 TIP)

DRAFT**CMAQ SCORING**

Qualitative Index*

<i>ID</i>	<i>Project</i>	<i>Notes</i>	<i>FY18-21 TIP</i>	<i>Project Type</i>	<i>VMT</i>	<i>Cost</i>	<i>Life</i>	<i>Total</i>
1	GENERAL: Heavy Equipment Program (only diesel retrofits/replacements)	new	\$76,388,000	Diesel				
2	GENERAL: Transit Vehicle Replacement (diesel retrofits/replacements)	Fixed-route only	\$46,898,800	Diesel				
3	NCC Transit Center Park and Ride		\$4,750,000	Shared Ride	6	0	6	12
4	Rideshare Program, statewide		\$366,000	Shared Ride	3	3	6	12
5	Middletown Park and Ride	new	\$3,500,000	Shared Ride	3	0	6	9
6	Transit Vehicle Expansion, NCC	Fixed-route only	\$1,693,200	Transit	6	3	3	12
7	Rail: Newark Regional Transit Center		\$62,733,200	Transit	3	0	6	9
8	Wilmington Traffic Calming: Walnut: MLK Blvd. to 13th		\$12,705,000	Traffic Flow	3	0	6	12
9	US 40: US 40/SR 72 Intersection (multimodal)		\$18,595,400	Traffic Flow	3	0	6	9
10	SR 2 (Elkton Rd): MD Line to Casho Mill Rd. (multimodal)		\$27,750,000	Traffic Flow	3	0	6	9
11	Old Capitol Trail: Newport Road to Stanton Road (multimodal)	new; >\$2m w/full build	\$450,000	Traffic Flow	0	0	6	6
12	GENERAL: Transportation Management Improvements (expansion)	new	\$52,760,000	Traffic Flow				
13	Wilmington Traffic Calming: 4th St: Walnut - I-95		\$3,000,000	Ped/Bike	3	0	6	15
14	US 13: Duck Creek - SR 1		\$8,500,000	Ped/Bike	3	0	6	12
15	US 40: US 40/SR 7		\$2,580,000	Ped/Bike	3	0	6	12
16	New Castle Industrial Track: S of Christina River - Riverwalk		\$23,650,600	Ped/Bike	6	0	6	12
17	Grubb Road Pedestrian Improvements: Foulk Rd. - Naamans Rd.		n/a	Ped/Bike	3	0	6	12
18	Wilmington Traffic Calming: King/Orange: MLK Blvd. to 13th		\$6,700,000	Ped/Bike	3	0	6	9
19	US 13: Memorial Drive - US 40 Pedestrian Safety Improvements		\$7,000,000	Ped/Bike	3	0	6	9
20	Myrtle & Manor Avenue Sidewalk Improvements		\$3,120,000	Ped/Bike	3	0	6	9
21	Garasches Lane		\$4,452,200	Ped/Bike	3	0	6	9
22	GENERAL: Bicycle, Pedestrian, and Other Improvements (non-recreational only)	new	\$18,736,000	Ped/Bike				

CMAQ Project Prioritization Process - Methodology

1. Rank projects by type, based on emissions reporting within FHWA's National CMAQ database and federal guidance. Priority by type is: 1. Diesel Retrofits and Replacements, 2. Shared Ride, 3. Transit, 4. Traffic Flow, 5. I/M and other TCMS, 6. Pedestrian/Bicycle

2. Within project types, sort by quantitative emission benefits for diesel projects and qualitative benefits for others. Quantitative benefits can be determined from EPA calculators. An index determining the qualitative benefit follows.

*Qualitative Index

Reduce VMT - negligible (0); moderate (3); significant (6)

Cost - >2 million (0); \$500,000 - \$2 million (3); <\$500,000 (6)

Life expectancy - <5 years (0); 5-10 years (3); >10 years (6)