

THE ECONOMIC AND FISCAL IMPACT OF THE 2012 PHILADELPHIA AUTO SHOW

Report Submitted To:

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FINAL – May 23, 2012

TABLE OF CONTENTS

Executive Summary		i
1.0	Introduction	1
2.0	Direct Expenditures by the Auto Show and its Exhibitors	2
3.0	Ancillary Spending by Auto Show Attendees and Exhibitors	3
4.0	Economic and Fiscal Impacts of the Auto Show	7
5.0	Additional Qualitative Impacts	11
6.0	Conclusion	15
Appendix A	Additional Detail on Average Spending Profiles of 2012 Auto Show Attendees and Exhibitors	A-1
Appendix B	Economic and Fiscal Impact Model Methodology	A-7
Appendix C	Additional Detail on Industry Composition of Expenditure and Employment Impact of 2012 Philadelphia Auto Show	A-10
Appendix D	Additional Detail on Fiscal Impact of 2012 Philadelphia Auto Show	A-12

EXECUTIVE SUMMARY



The Philadelphia Auto Show, operated by the Automobile Dealers Association of Greater Philadelphia (ADAGP), is one of the nation's top automobile shows. In addition to providing a unique forum for its exhibitors, a great event for its attendees, and invaluable consumer information for prospective car buyers, the Auto Show also annually represents

a significant economic engine for the City of Philadelphia and the Commonwealth of Pennsylvania. ADAGP and exhibitors spend millions of dollars locally on labor, marketing, and operations, and visitors represent considerable spending on accommodations, transportation, food, and retail. This spending by ADAGP, exhibitors, and visitors, ripples through the local economy, supports additional activity and employment, and generates significant tax revenues for the City and Commonwealth.

In February 2012, Econsult Corporation produced a report for ADAGP in which it conservatively estimated that the 2011 Auto Show was responsible for about \$5.6 million in direct expenditures and about \$14.0 million in ancillary spending. This spending had a significant impact on the City and Commonwealth, supporting employment for a variety of industries, and generating tax revenues for the City and Commonwealth.

The 2012 Auto Show was even larger in attendance and impact, due in large part to the availability of the recently expanded Pennsylvania Convention Center, which enabled the 2012 Auto Show to unify its many exhibits into one large hall, provide more exhibitor space (and therefore enable exhibitors to offer more elaborate exhibitions), and accommodate more visitors. Econsult conservatively estimated that the 2012 Auto Show was responsible for about \$6.1 million in direct expenditures (a 9 percent increase from 2011) and about \$15.8 million in ancillary spending (a 13 percent increase from 2011) (see Table ES.1).

This spending had a significant economic and fiscal impact on the City and Commonwealth (see Table ES.3). Within the City, the 2012 Auto Show generated about \$34 million in total expenditures (a 10 percent increase from 2011), supporting about 363 jobs (a 13 percent increase from 2011). Within the Commonwealth, it generated about \$48 million in total expenditures (a 12 percent increase from 2011), supporting about 638 jobs (a 14 percent increase from 2011). It also generated about \$840,000 in tax revenues for the City (a 17 percent increase from 2011) and about \$1.58 million in tax revenues for the Commonwealth (a 15 percent increase from 2011).

Table ES.1 – Attendance and Spending Estimates for 2012 Auto Show vs. 2011 Auto Show

Event Details	2012	2011	% Change
Total Floor Space (sf)	578,000	506,000	+14%
Total Attendance	252,480	225,596	+12%
Hotel Nights	6,593	4,553	+45%
Direct Expenditures and Ancillary Spending	2012	2011	% Change
Estimated Direct Expenditures by ADAGP and Exhibitors	\$6.1M	\$5.6M	+9%
Estimated Ancillary Spending by Visitors	\$15.8M	\$14.0M	+13%

Automobile Dealers Association of Greater Philadelphia (2011, 2012), Econsult Corporation (2012)

Table ES.2 – Economic and Fiscal Impact Estimates for 2012 Auto Show vs. 2011 Auto Show

City Impact	2012	2011	% Change
Expenditure Impact	\$34M	\$31M	+10%
Employment Impact	363	320	+13%
Fiscal Impact	\$0.84M	\$0.72M	+17%
Commonwealth Impact ¹	2012	2011	% Change
Expenditure Impact	\$48M	\$43M	+12%
Employment Impact	638	560	+14%
Fiscal Impact	\$1.58M	\$1.37M	+15%

Automobile Dealers Association of Greater Philadelphia (2011, 2012), Econsult Corporation (2012)

¹ Since the City is completely contained within the Commonwealth, the City figures are included in the Commonwealth figures, as these figures represent the amount of economic activity taking place within each jurisdiction's boundaries. Because local taxes are different from state taxes, the City figures for tax revenues are not included in the Commonwealth figures, as these figures represent the amount of tax revenues going to the respective jurisdictions.

1.0 INTRODUCTION



The **Philadelphia Auto Show** annually draws hundreds of thousands of visitors and dozens of exhibiting automobile manufacturers. It is recognized within the automotive industry as one of the nation's top shows, and features over 700 vehicles each year. The Automobile Dealers Association of Greater Philadelphia (ADAGP) has owned the show since

1902, and has produced it for the past 14 years. The ADAGP incorporated its philanthropic wing, the Auto Dealers CARing for Kids Foundation, in 2003. The Foundation has made millions of dollars of charitable contributions within the Philadelphia region since its incorporation. Over the past 26 years, the ADAGP and its Foundation have made more than \$6.5 million in contributions to local charities, with \$4.9 million of that amount going to The Children's Hospital of Philadelphia.

In addition to providing a unique forum for its exhibitors, a great event for its attendees, and invaluable consumer information for prospective car buyers, the Auto Show also annually represents a significant economic engine for the City of Philadelphia and the Commonwealth of Pennsylvania. As part of the nine-day annual event, ADAGP and exhibitors spend millions of dollars locally on expenditures such as building trade labor, marketing, operations, and facility rental to the Pennsylvania Convention Center (PCC). Visitors and exhibitors also represent considerable spending within the City and Commonwealth, on accommodations, transportation, food, and retail. Even better, much of this purchasing power is imported into the City and Commonwealth by out-of-town guests. This spending, by ADAGP, exhibitors, and visitors, ripples through the local economy and supports additional activity and employment. It also generates significant tax revenues for the City and Commonwealth, through the overall increase in economic activity as well as through increases in amusement tax revenues, hotel room tax revenues, and parking tax revenues.

ADAGP engaged Econsult Corporation to identify and quantify the economic impacts (i.e. expenditures, employment, and earnings) that occur within the City and Commonwealth, and the fiscal impacts (i.e. tax revenues) that accrue to the City and Commonwealth, each year as a result of the Auto Show. Standard input-output methodologies were employed to estimate these economic and fiscal impacts. Throughout this report, data from the 2012 Auto Show were utilized (as well as past years' Auto Shows, as needed), including direct attendance and expenditure data as well as survey data. Where appropriate, conservative assumptions were employed, so the Auto Show's actual impacts are likely larger than what is reported here.

2.0 DIRECT EXPENDITURES BY THE AUTO SHOW AND ITS EXHIBITORS

The first set of direct expenditures generated within the City and Commonwealth by the 2012 Auto Show is **the direct expenditures by ADAGP and by exhibiting automobile manufacturers**. The Auto Show annually generates millions of dollars of expenditures within the City and Commonwealth, by ADAGP and exhibitors, in such expenditure categories as building trade labor, marketing, and operations. Each year, it also generates hundreds of thousands of dollars in building rental revenues to PCC, and hundreds of thousands of dollars in local charitable contributions.

Based on direct expenditure data provided by ADAGP for the 2012 Auto Show, for the Black Tie Tailgate Preview Gala that preceded the 2012 Auto Show, and for building trade labor employed by Auto Show exhibitors, it is estimated that **the 2012 Auto Show represented about \$6.1 million in direct expenditures, up 9 percent from the 2011 Auto Show** (see Table 2.1). This included about \$3 million in local union labor, which came at a time of high unemployment and slack labor demand, and about \$720,000 in local charitable giving, which came at a time of constrained giving and heightened need. Notably, exhibitor hotel nights increased by 46 percent, from 2,500 in 2011 to 3,650 in 2012, reflecting the larger floor area available for the 2012 Auto Show (578,000 square feet, up 14 percent from 2011) and therefore the ability to have more exhibit space and more complex exhibitions.

Table 2.1 – Estimated Direct 2012 Auto Show Expenditures by ADAGP and Exhibitors (in \$M)

Expenditure Category	Auto Show	Black Tie Gala	Exhibitors	PCC	Total
Building Labor	\$0.31	\$0.02	\$2.24	\$0.43	\$3.00
Building and Equipment	\$0.67	\$0.01			\$0.68
Marketing	\$0.58	\$0.05			\$0.64
Operations	\$0.59	\$0.52			\$1.11
Charitable Giving	\$0.32	\$0.40			\$0.72
Total (2012)	\$2.48	\$1.00	\$2.24	\$0.43	\$6.14
Total (2011)					\$5.64
% Change					+9%

Automobile Dealers Association of Greater Philadelphia (2011, 2012), Econsult Corporation (2012)

3.0 ANCILLARY SPENDING BY AUTO SHOW ATTENDEES AND EXHIBITORS

The second set of direct expenditures generated within the City and Commonwealth by the 2012 Auto Show is **the ancillary spending by Auto Show attendees and exhibitors**. Attendees and exhibitors drawn to the City and Commonwealth by the Auto Show bring their purchasing power into the City and Commonwealth, and their spending on accommodations, transportation, food, and retail stimulates economic activity and supports employment within the City and Commonwealth. While it is unknown precisely how much spending was brought into the City and Commonwealth by the 2012 Auto Show, a low-end estimate can be determined by applying conservative per-day spending averages to attendee and exhibitor counts, and by utilizing other conservative assumptions.



To arrive at this estimate of attendee and exhibitor spending within the City and Commonwealth, attendees and exhibitors were divided into seven categories based either on survey data provided by ADAGP or on distance traveled, with conservative assumptions employed as necessary so as not to overstate the spending estimates. Similarly, each attendee category was assigned an average spending amount based on industry averages with conservative assumptions employed as necessary so as not to overstate the spending estimates. Attendance figures were reviewed by EisnerAmper LLP.²

This approach yields a conservative estimate of **about \$15.8 million in spending by 2012 Auto Show attendees and exhibitors, up 13 percent from the 2011 Auto Show** (see Table 3.1). This magnitude of spending within the City and Commonwealth further stimulates the City and Commonwealth economy, supports employment within the City and Commonwealth, and generates tax revenues for the City and Commonwealth. Even better for the City and Commonwealth, a large number of Auto Show attendees hail from outside the City and Commonwealth – the Auto Show drew attendees from all throughout the Philadelphia region and beyond, including over 30 states and countries (see Figure 3.1 and Figure 3.2) – and thus

² See Appendix A for additional detail on the methodological approach for estimating ancillary spending by 2012 Auto Show attendees and exhibitors.

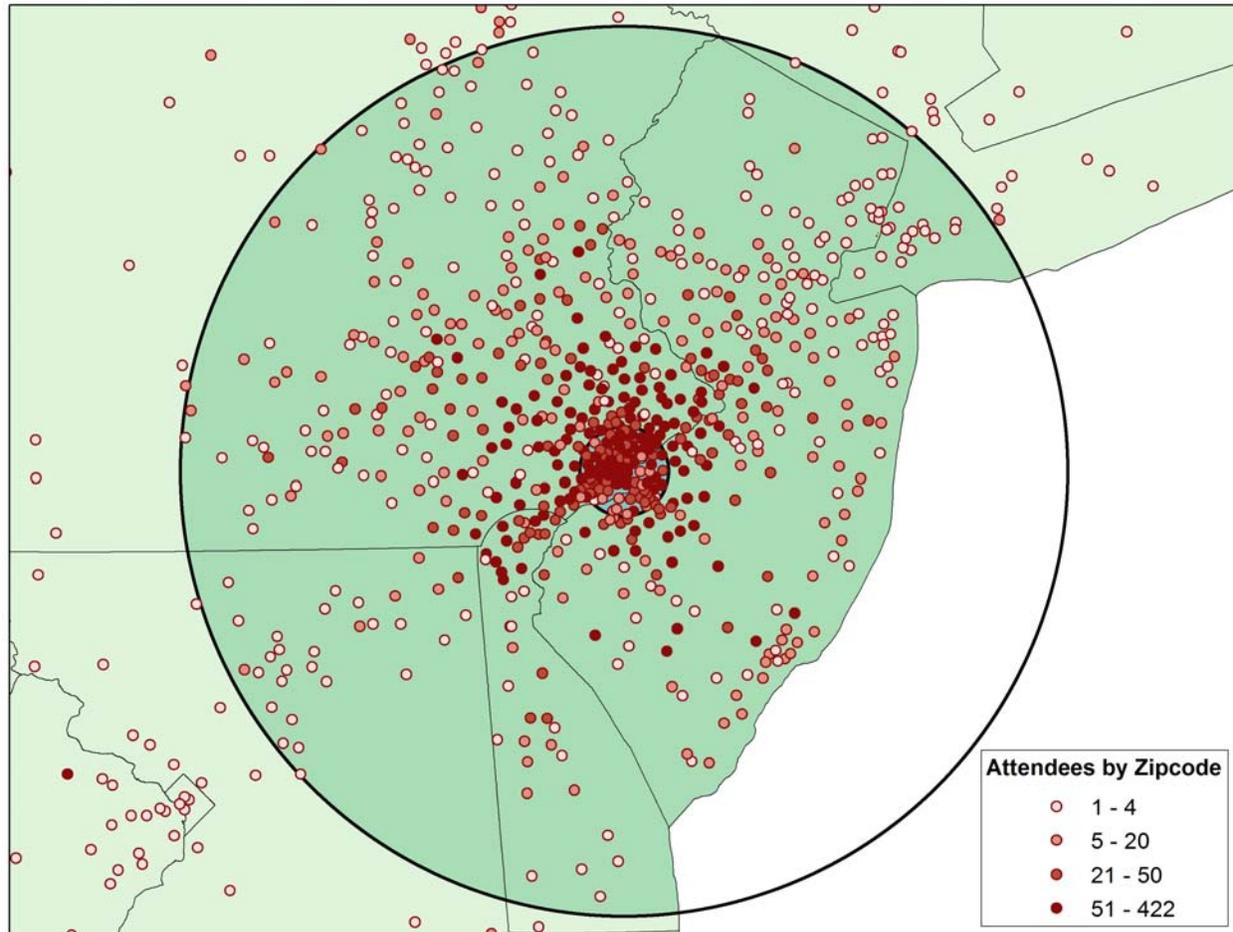
their spending represents an importation of outside purchasing power into the City and Commonwealth.

Table 3.1 – Estimated Ancillary Spending by 2012 Auto Show Attendees and Exhibitors

	Attendance	Estimated # Room Nights	Estimated Total Spending (\$M)
Auto Show Attendees	240,704	2,593	\$14.6
Black Tie Gala Attendees	3,312	350	\$0.3
Auto Show Exhibitors	8,464	3,650	\$0.9
Total, All Attendees and Exhibitors (2012)	252,480	6,593	\$15.8
Total, All Attendees and Exhibitors (2011)	225,596	4,553	\$14.0
% Change	+12%	+45%	+13%

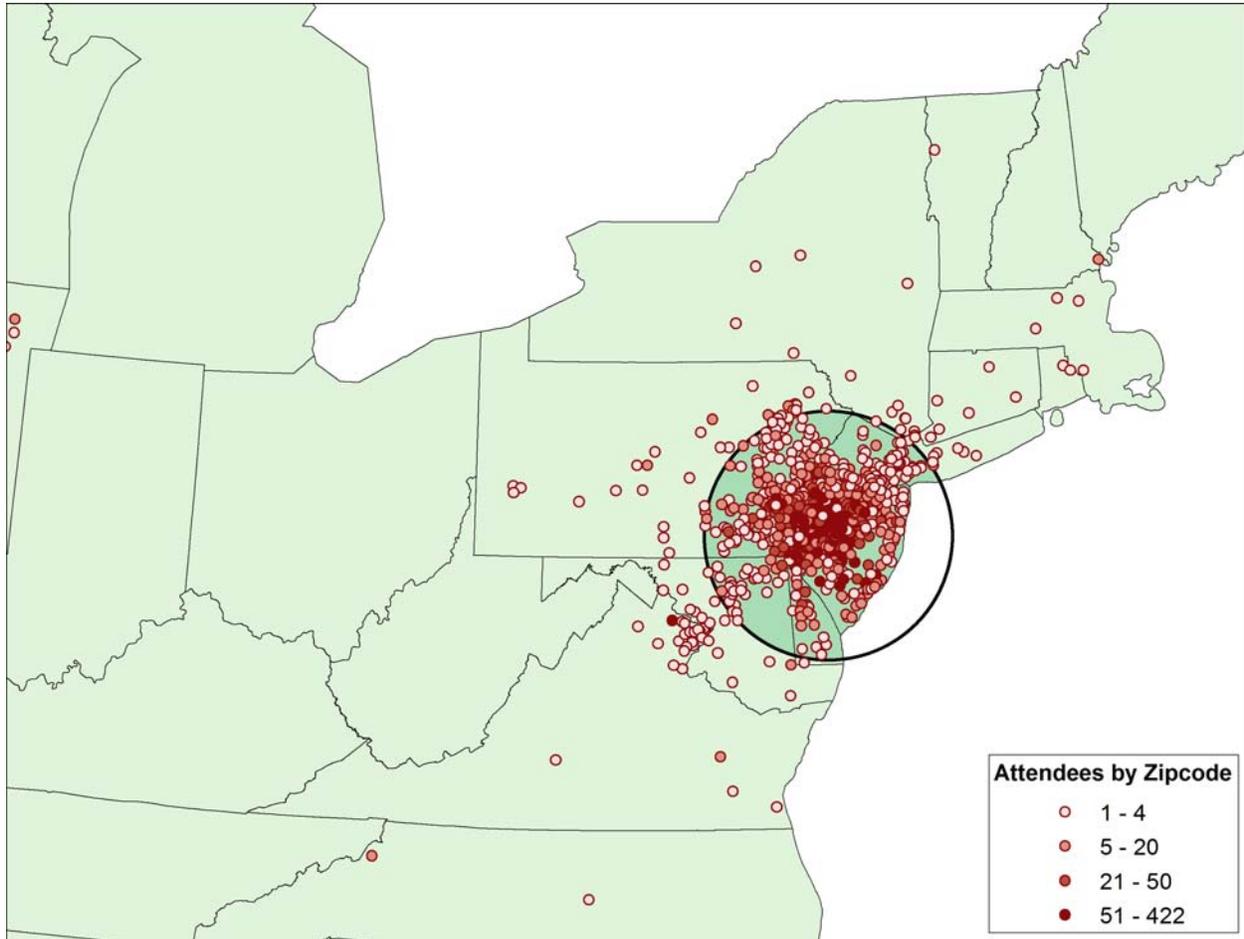
Automobile Dealers Association of Greater Philadelphia (2011, 2012), US General Service Administration (2009), US Bureau of Labor Statistics (2009), Greater Philadelphia Cultural Alliance (2007), Econsult Corporation (2012)

Figure 3.1 – Selected Zip Codes of 2012 Auto Show Attendees (each dot represents a zip code in which one or more Auto Show attendees purchased tickets online; the circles represent a 10-mile and 100-mile radius from the Pennsylvania Convention Center)



Automobile Dealers Association of Greater Philadelphia (2012), Econsult Corporation (2012)

Figure 3.2 – Selected Zip Codes of 2012 Auto Show Attendees (each dot represents a zip code in which one or more Auto Show attendees purchased tickets online; the circles represent a 10-mile and 100-mile radius from the Pennsylvania Convention Center)



Automobile Dealers Association of Greater Philadelphia (2012), Econsult Corporation (2012)

4.0 ECONOMIC AND FISCAL IMPACTS OF THE AUTO SHOW

The 2012 Auto Show was responsible for \$6.1 million in direct expenditures by the Auto Show³ and its exhibitors and \$15.8 million in ancillary spending by Auto Show attendees and exhibitors. The total impact of these expenditures can be expressed first in terms of total expenditures, which are the sum of those initial expenditures and any spillover expenditures that result from them. Spillover expenditures come in two forms: indirect and induced expenditures. Indirect expenditures are generated as local vendors increase production in response to the initial expenditures. Induced expenditures are generated as employees spend their earnings within the local economy. These direct, indirect, and induced expenditures support a certain amount of employment and earnings. Second, this economic activity results in the generation of new local and state tax revenues. Standard input-output methodologies were employed to estimate the composition and scale of these economic and fiscal impacts.⁴

The 2012 Auto Show had a significant impact on the City and Commonwealth, supporting employment for a variety of industries within the City and Commonwealth, and generating tax revenues for the City and Commonwealth (see Table 4.1, Figure 4.1, and Figure 4.2). Within the City, the 2012 Auto Show was estimated to generate **an annual economic impact of about \$34 million in total expenditures, supporting about 363 jobs and about \$8 million in earnings**. Within the Commonwealth, the 2012 Auto Show was estimated to generate **an annual economic impact of about \$48 million in total expenditures, supporting about 638 jobs and about \$15 million in earnings**. The 2012 Auto Show was also estimated to generate **about \$840,000 in tax revenues for the City and about \$1.58 million in tax revenues for the Commonwealth**. **All of these figures are at least 10 percent higher than 2011 estimates.**⁵

³ “Auto Show” in this section includes both the Auto Show and the Black Tie Tailgate Gala.

⁴ Any expenditure generates additional economic activity in a particular geographic area via the mechanism of the Keynesian consumption multiplier, an established behavioral characterization of the nature of economic activity in a market economy. In other words, in measuring the total economic impact of an initiative, one must account for the complex inter-industry relationships within a region, and specifically the manner in which an increase in output in a particular industry results in increases in outputs by other industries.

The economic impact model uses the US Department of Commerce’s Regional Input-Output Modeling Systems (RIMS II) to produce estimates of the distribution of economic impact at the county and state level, which in turn yields the familiar multipliers used in economic impact analyses. The fiscal impact model estimates the tax revenue implications to the City and the Commonwealth of that scale and composition of economic impact. See Appendix B for more information on Econsult’s economic and fiscal impact methodology.

⁵ Since the City is completely contained within the Commonwealth, the City figures are included in the Commonwealth figures, as these figures represent the amount of economic activity taking place within each jurisdiction’s boundaries. Because local taxes are different from state taxes, the City figures for tax revenues are not included in the Commonwealth figures, as these figures represent the amount of tax revenues going to the respective jurisdictions.

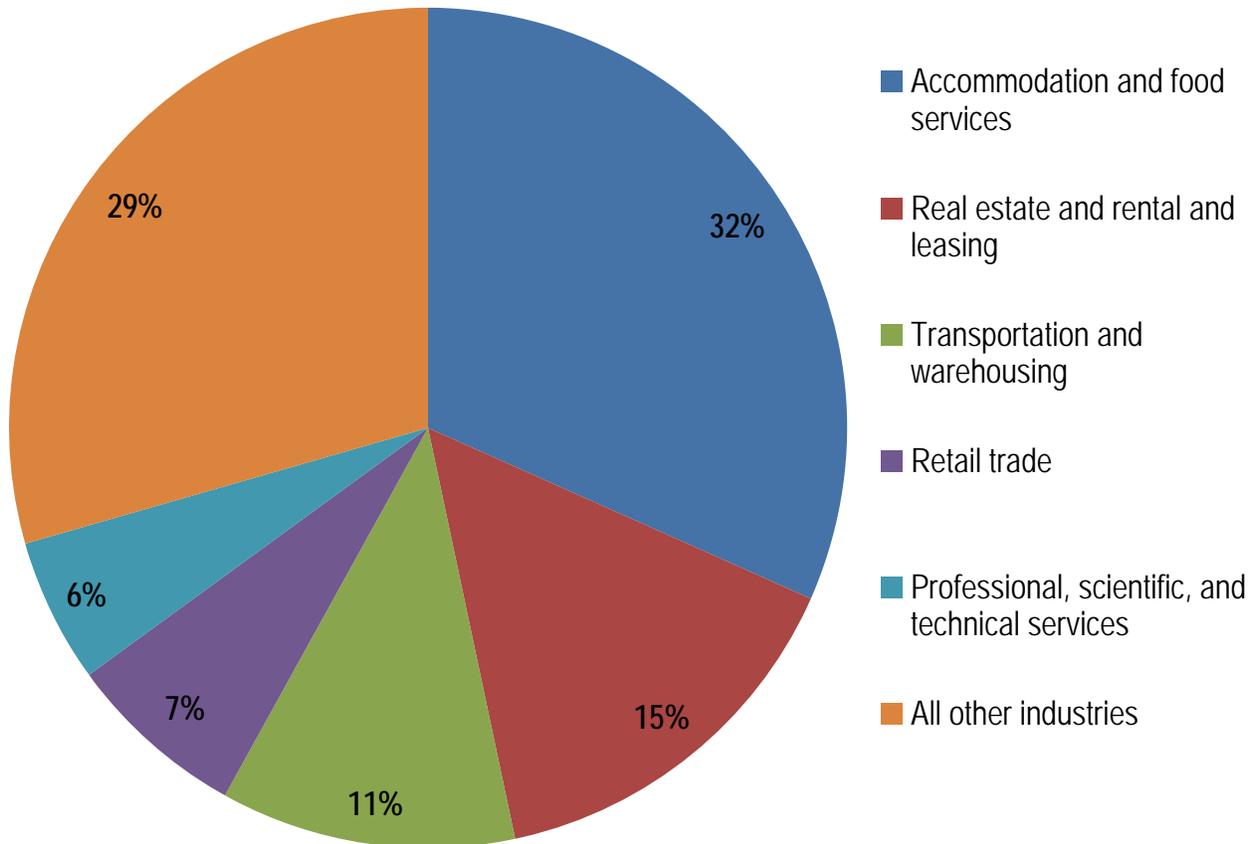
See Appendix C for additional detail on the industry distribution of the expenditure and employment impact of the 2012 Auto Show. See Appendix D for additional detail on the composition of local and state tax revenues generated by the 2012 Auto Show.

Table 4.1 – Estimated Economic and Fiscal Impact of 2012 Auto Show within the City of Philadelphia and the Commonwealth of Pennsylvania

City Impact	Direct Expenditures by Auto Show and Exhibitors	Ancillary Spending by Auto Show Attendees and Exhibitors	Total (2012)	Total (2011)	% Change
Direct Expenditures (\$M)	\$6.1	\$15.8	\$21.9	\$19.7	+11%
Indirect and Induced Expenditures (\$M)	\$3.1	\$9.3	\$12.4	\$11.1	+12%
Total Expenditures (\$M)	\$9.2	\$25.1	\$34.3	\$30.8	+11%
Total Employment	80.4	283	363	320	+13%
Total Earnings (\$M)	\$3.8	\$4.7	\$8.4	\$6.7	+25%
Total Local Tax Revenues (\$M)	\$0.17	\$0.67	\$0.84	\$0.72	+17%
Commonwealth Impact	Direct Expenditures by Auto Show and Exhibitors	Ancillary Spending by Auto Show Attendees and Exhibitors	Total (2012)	Total (2011)	% Change
Direct Expenditures (\$M)	\$6.1	\$15.8	\$21.9	\$19.7	+11%
Indirect and Induced Expenditures (\$M)	\$5.7	\$19.9	\$25.6	\$23.0	+11%
Total Expenditures (\$M)	\$11.9	\$35.7	\$47.6	\$42.7	+11%
Total Employment	131	507	638	558	+14%
Total Earnings (\$M)	\$4.4	\$10.2	\$14.6	\$12.1	+21%
Total State Tax Revenues (\$M)	\$0.29	\$1.30	\$1.58	\$1.37	+15%

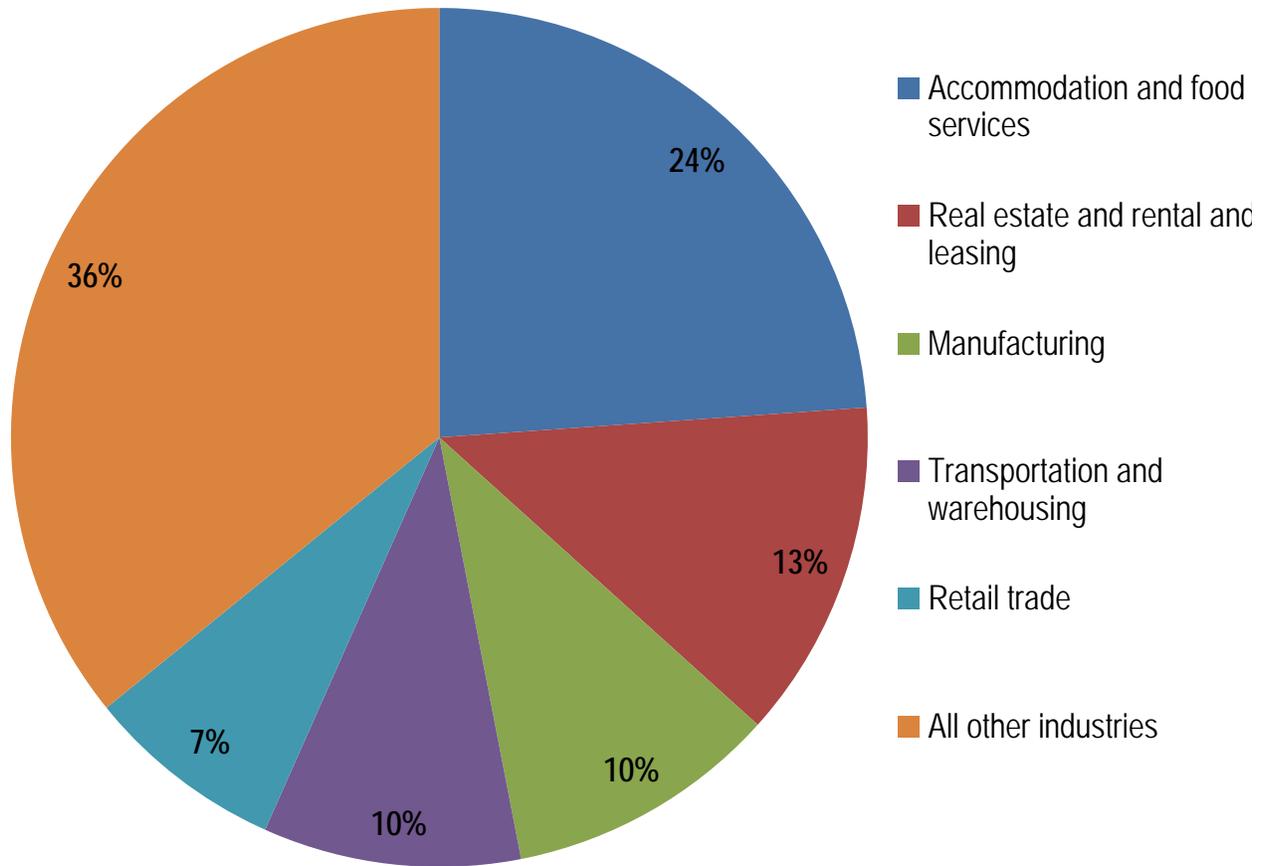
Automobile Dealers Association of Greater Philadelphia (2011, 2012), US Department of Commerce (2009), Econsult Corporation (2012)

Figure 4.1 – Estimated Industry Composition of Expenditure Impact within the City of Philadelphia from 2012 Auto Show



Automobile Dealers Association of Greater Philadelphia (2012), US Department of Commerce (2009), Econsult Corporation (2012)

Figure 4.2 – Estimated Industry Composition of Expenditure Impact within the Commonwealth of Pennsylvania from 2012 Auto Show



Automobile Dealers Association of Greater Philadelphia (2012), US Department of Commerce (2009), Econsult Corporation (2012)

5.0 ADDITIONAL QUALITATIVE IMPACTS

The Auto Show is a significant generator of economic activity within the City and Commonwealth and a significant generator of tax revenues for the City and Commonwealth. This is reflected in the economic and fiscal impact estimates described in this report. A number of additional, qualitative impacts also warrant attention, when considering the role of the Auto Show in the economy and vibrancy of the City and Commonwealth:

1. **The Auto Show takes place at PCC every year.** This means that, unlike other large-scale events whose locations may rotate among multiple cities across the US, the economic and fiscal gains to the City and Commonwealth are experienced annually, and they occur during a time of the year when tourism activity and hotel bookings tend to be low. In fact, of the top conventions and trade shows that took place in Philadelphia in 2010 and 2011, only one had delegate spending that exceeded the 2012 Auto Show's ancillary spending estimates, and only two had been previously hosted by Philadelphia in the preceding decade (see Table 5.1). The Auto Show's annual frequency makes it one of the Convention Center's major economic generators: since 2007, it is estimated that the Auto Show has been responsible for about 1.3 million attendees, about \$80 million in ancillary spending, and about \$230 million in economic impact within the Commonwealth (see Table 5.2).

Table 5.1 – Top 10 Conventions and Trade Shows in Philadelphia in 2010 and 2011, by Delegate Spending

Event	# Attendees	Estimated Delegate Spending (in \$M)	# Other Appearances in Philadelphia between 2001 and 2011 (Year(s))
Philadelphia Auto Show	252,480	\$15.8 (estimated 2012 figure)	11 (2001-2011)
1. American Society of Nephrology	13,000	\$20.6	1 (2008)
2. National Science Teachers Association	15,000	\$15.5	0
3. Association of periOperative Registered Nurses	10,000	\$14.6	0
4. Lightfair International	23,000	\$12.3	0
5. American Speech-Language-Hearing Association	10,000	\$12.3	1 (2004)
6. True Value Fall Market Showcase	12,000	\$12.1	0
7. National Athletic Trainers Association	10,000	\$11.5	0
8. Questex Media Group	24,000	\$10.4	0
9. American Association of Neurological Surgeons	7,200	\$9.6	0
10. American Society for Cell Biology	9,000	\$9.4	0

Source: Philadelphia Business Journal (2011, 2012), Econsult Corporation (2012)

Table 5.2 – Estimate of Auto Show Attendee Spending and Total Economic Impact within the Commonwealth, as Proportioned from Reviewed Attendance Figures (in 2012 \$M)⁶

	2007	2008	2009	2010	2011	2012	2007-2012 Total
Attendance (000)	241	251	200	150	225	252	1,319
Estimated Attendee Spending (\$M)	\$13	\$14	\$12	\$9	\$14	\$16	\$79
Estimated Total Economic Impact within the Common-wealth (\$M)	\$39	\$42	\$35	\$27	\$43	\$48	\$234

Source: Automobile Dealers Association of Greater Philadelphia (2007-2012), Econsult Corporation (2012)

- A significant portion of the proceeds from the Auto Show is reinvested within the City and Commonwealth in the form of a variety of charitable giving outlets.** Since 2003, the ADAGP has contributed more than \$5.6 million to the Auto Dealers CARing for Kids Foundation; for all intents and purposes, this is the total of the Association's earnings over the same amount of time. In turn, the Foundation has made more than \$3.5 million in grants to local children's charities, including a \$2 million, six-year pledge to The Children's Hospital of Philadelphia. The Foundation's "Driving Away the Cold" program provided about 22,500 coats for local children in low income families in 2011. For 2012, almost \$400,000 has been allocated to the purchase of coats for the program.
- It is uncertain whether the Auto Show leads to more automobile sales within the City and Commonwealth by accelerating purchase decisions. However, it is indisputable that **the Auto Show is a significant resource for prospective car buyers.** Exit surveys commissioned by ADAGP in past years indicate that over half of Auto Show attendees come to look at new cars and trucks,⁷ and that over 90 percent of attendees who purchased new cars said that the Auto Show helped in their purchasing decision. This represents a very real benefit to



⁶ Attendee spending and estimated total economic impact within the Commonwealth for the 2007 to 2010 Auto Shows was roughly proportioned based on 2011 and 2012 results, and deflated downward to reflect an inflation rate of 3 percent.

⁷ As of 2011, 51.8 percent of respondents listed their main reason for coming as "new cars and trucks." This figure does not include those respondents that listed such other choices as "exotic cars," "factory concept vehicles," and "vintage cars."

the residents of the City and Commonwealth: for many, a car is the second largest purchase they will make (after a house), and having a high quality and quantity of information made available to them via the Auto Show helps them to make that purchasing decision in a more educated manner.⁸

4. The attendance of all of the major automobile manufacturers at one of the industry's largest and most respected events facilitates the possibility that **these companies will opt to return to the City and Commonwealth for their own private gatherings**, such as leadership retreats and regional sales meetings. For example, in November 2011, General Motors hosted a regional meeting at the Philadelphia Marriott Downtown, resulting in 600 hotel room nights (300 rooms x 2 nights). Additionally, the Philadelphia Convention and Visitors Bureau worked and had success in contracting a significant Honda National Dealer meeting in Fall 2012, at which many of Honda's 1,200 dealers will be in town for multiple nights.

⁸ In economic terms, the "utility" derived from the information provided by the Auto Show by Auto Show attendees who are prospective car buyers far exceeds the price of their ticket to the Auto Show.

6.0 CONCLUSION

As anticipated, the increase in floor space for the 2012 Auto Show brought with it sizeable increases in expenditure and impact. Estimates for the 2012 Auto Show suggest that the roughly 14 percent increase in Auto Show floor space was accompanied by a 11 to 12 percent increase in economic impact for the City and the Commonwealth, a 13 to 14 percent increase in employment impact within the City and Commonwealth, and a 15 to 17 percent increase in fiscal impact to the City and the Commonwealth (see Table 6.1).

Table 6.1 – Figures for 2012 Auto Show vs. 2011 Auto Show

Event Details	2012	2011	% Change
Total Floor Space (sf)	578,000	506,000	+14%
Total Attendance	252,480	225,596	+12%
Hotel Nights	6,593	4,553	+45%
Direct Expenditures and Ancillary Spending	2012	2011	% Change
Estimated Direct Expenditures by ADAGP and Exhibitors	\$6.1M	\$5.6M	+9%
Estimated Ancillary Spending by Visitors	\$15.8M	\$14.0M	+13%
City Impact	2012	2011	% Change
Expenditure Impact	\$34M	\$31M	+11%
Employment Impact	363	320	+13%
Fiscal Impact	\$0.84M	\$0.72M	+17%
Commonwealth Impact	2012	2011	% Change
Expenditure Impact	\$48M	\$43M	+12%
Employment Impact	638	560	+14%
Fiscal Impact	\$1.58M	\$1.37M	+15%

Automobile Dealers Association of Greater Philadelphia (2011, 2012), Econsult Corporation (2012)

Further, more displays and attractions were available in 2012 due to the increased size and consolidated organization of the floor space. Exhibits like the Toyota Ride & Drive not only heightened the attractiveness of the show to visitors, but further increased the need for exhibitor involvement in the show: hotel nights by exhibitors were up 46 percent from 2011. Thus, the virtuous cycle discussed in the 2011 report came to pass: more and bigger exhibits drew in more attendees and thus motivated more and bigger exhibits and more hotel room nights. Conversely, it is likely that contracted floor space would lead to fewer and smaller exhibits, drawing in fewer attendees and thus motivating fewer and smaller exhibits and fewer hotel room nights.

APPENDIX A – ADDITIONAL DETAIL ON AVERAGE SPENDING PROFILES OF 2011 AUTO SHOW ATTENDEES AND EXHIBITORS

A.1 Overall Methodology

A low-end estimate of spending drawn to the City and Commonwealth by the 2012 Auto Show can be determined by applying conservative per-day spending averages to attendee and exhibitor counts, and by utilizing other conservative assumptions. To arrive at this estimate of attendee and exhibitor spending within the City and Commonwealth, attendees and exhibitors were divided into seven categories based either on survey data provided by ADAGP or on distance traveled, with conservative assumptions employed as necessary so as not to overstate the spending estimates. Similarly, each attendee category was assigned an average spending amount based on industry averages with conservative assumptions employed as necessary so as not to overstate the spending estimates. Attendance figures were reviewed by EisnerAmper LLP.

A.2 Auto Show Attendees

2012 Auto Show attendance was 252,480. However, this includes 3,312 Black Tie Gala attendees as well as 8,464 exhibitor-days⁹ (most exhibitors attended the Auto Show multiple days, each of which was counted as an exhibitor-day), so after excluding those two numbers, the number of Auto Show attendees was 240,704. For purposes of assigning average spending amounts, these attendees were divided into three categories: in-town, day trip, and overnight. Estimates of these proportions were determined by calculating the distances from PCC to the home zip codes of attendees who purchased their tickets online. Attendees coming from less than 10 miles away were considered “in-town,” those coming from 10 to 100 miles were considered “day trip,” and those coming from more than 100 miles were considered “overnight.”¹⁰

Based on this approach, it is estimated that 27.7 percent of 2012 Auto Show attendees were “in-town” (or about 66,790), 70.1 percent were “day trip” (or about 168,727), and 2.2 percent were “overnight” (or about 5,187). It is assumed that “overnight” guests averaged two guests per room, so for the purposes of assigning the appropriate average spending amounts per guest

⁹ This figure includes all 155 attendees of “Media Day”.

¹⁰ As a point of reference, New York City is less than 100 miles away from PCC. Therefore, all 2012 Auto Show attendees from New York City were assigned to the category, “day trip,” from the standpoint of average spending.

type, half of the “overnight” guest count was shifted into the “day trip” guest count (see Table A.1).¹¹

Table A.1 – Estimated Residential Distribution of 2012 Auto Show Attendees

	Estimated % Split	Estimated # Split	Adjustment for “Doubling Up” in Hotel Rooms	Adjusted Estimated # by Guest Type
In-Town = <10 mi	27.7%	66,790		66,790
Day Trip = 10-100 mi	70.1%	168,727	+2,594	171,321
Overnight = >100 mi	2.2%	5,187	-2,594	2,593

Automobile Dealers Association of Greater Philadelphia (2012), Econsult Corporation (2012)

This apportioning is based on the residential distribution of attendees who purchased their tickets online, and may not necessarily reflect the residential distribution of all attendees. However, an exit survey conducted by ADAGP during the 2012 Auto Show suggests that these distributions are not meaningfully different (see Table A.2).

Table A.2 – Reconciliation of Estimated Residential Distribution of 2012 Auto Show Attendees, Based on E-Ticket Zip Codes vs. Exit Survey

	E-Tickets Only	Exit Survey of All Attendees
In-Town = <10 mi	28%	37%
Day Trip = 10-100 mi	70%	61%
Overnight = >100 mi	2%	2%

Automobile Dealers Association of Greater Philadelphia (2012), Econsult Corporation (2012)

¹¹ In other words, every two “overnight” guests accounted for only one hotel night, so instead of assigning an average spending amount per “overnight” guest to each of those two guests, an average spending amount per “overnight” guest was assigned to one of the guests, and an average spending amount per “day trip” guest was assigned to the other guest.

A.3 Black Tie Gala Attendees

2012 Black Tie Gala attendance was 3,312. For purposes of assigning average spending amounts, these attendees were divided into three categories: hotel, no hotel (in-town), and no hotel (day trip) (see Table A.3). 2012 Black Tie Gala attendees were conservatively estimated to represent 350 room nights, based in part on counts of hotel room nights at the Philadelphia Marriott Downtown.

The split between no hotel (in-town) and no hotel (day trip) was assumed to mirror the distribution of zip codes for Black Tie Gala attendees who came from less than 100 miles away. In other words, the 37.4 percent of Black Tie Gala attendees coming from less than 10 miles away were considered to be in-town attendees, and the 61.1 percent of Black Tie Gala attendees coming from between 10 and 100 miles were considered to be day trip attendees. Thus, the split between no hotel (in-town) and no hotel (day trip) was assumed to be 38 percent to 62 percent, and that split was applied to the 2,962 Black Tie Gala attendees who did not stay in a hotel (i.e. the 3,312 total Black Tie Gala attendees minus the 350 Black Tie Gala attendees who stayed in a hotel). This yielded an estimate of 1,126 in-town attendees and 1,836 day trip attendees.¹²

Table A.3 – Estimated Residential Distribution of 2012 Black Tie Gala Attendees

Distance, PCC to Home Zip	% of Attendees	Attendee Distribution Category	Estimated % of Attendees	Estimated # of Attendees
<10 mi	37.4% (38% of "<100 mi" attendees)	No Hotel (in-town)	34.0% (38% of "no hotel" attendees)	1,126
10-100 mi	61.1% (62% of "<100 mi" attendees)	No Hotel (day trip)	55.4% (62% of "no hotel" attendees)	1,836
>100 mi	1.5%	Hotel	10.6%	350

Automobile Dealers Association of Greater Philadelphia (2012), Econsult Corporation (2012)

¹² The higher proportion of Black Tie Gala attendees staying in hotels, versus the proportion of Black Tie Gala attendees who live more than 100 miles away, is explained by the fact that many in-town and day trip attendees opted to stay in hotels as part of their night out.

A.4 Auto Show Exhibitors

2012 Auto Show exhibitors logged a total of 8,464 days at the Auto Show. Hotel room night counts from exhibitor sign-in sheets total about 3,650 hotel nights, up 46 percent from 2011. It is likely that there were even more hotel room nights than that, since some exhibitors signified that they stayed in a hotel but did not enter the number of nights, and so were conservatively not counted. It is also likely that exhibitors who did not signify that they stayed in a hotel (i.e. they were from in-town) represented some ancillary spending during the Auto Show, so it is conservative to not include that spending.

A.5 Ancillary Spending

Conservative spending estimates, based on relevant industry averages and surveys, were then applied to these attendance and exhibitor categories (see Table A.4). For overnight stays, the US General Service Administration and the Consumer Expenditure Survey of the US Department of Labor's Bureau of Labor Statistics estimate per-day transportation costs of \$23, per-day accommodations costs of \$153, and per-day food costs of \$66. These amounts were conservatively reduced for in-town (1/3 of the amounts) and day trip (2/3 of the amounts) attendees. Furthermore, overnight attendees are conservatively estimated to have trip lengths of only one day and one night. Additionally, a 2007 survey by the Greater Philadelphia Cultural Alliance found that average Philadelphia attendee spending was \$3.65 on souvenirs and gifts, \$1.27 on clothing and accessories, and \$2.79 on miscellaneous purchases, for a total of \$7.71 in leisure spending in categories besides transportation, accommodations, and food.

Table A.4 – Estimated Ancillary Spending by 2012 Auto Show Attendees and Exhibitors, by Attendee Type

Auto Show Attendees	Transportation	Accommodations	Food	Other	Total
1. In-Town	\$8		\$22	\$8	\$37
2. Day Trip	\$15		\$44	\$8	\$67
3. Overnight	\$23	\$153	\$66	\$8	\$250
Black Tie Gala Attendees	Transportation	Accommodations	Food	Other	Total
4. Hotel	\$23	\$153	\$66	\$8	\$250
5. No Hotel (in-town)	\$8		\$22	\$8	\$37
6. No Hotel (day trip)	\$15		\$44	\$8	\$67
Auto Show Exhibitors	Transportation	Accommodations	Food	Other	Total
7. Overnight	\$23	\$153	\$66	\$8	\$250

Automobile Dealers Association of Greater Philadelphia (2012), US General Service Administration (2009), US Bureau of Labor Statistics (2009), Greater Philadelphia Cultural Alliance (2007), Econsult Corporation (2012)

Multiplying through by attendance category estimates yields aggregate ancillary spending by 2012 Auto Show attendees and exhibitors of about \$16 million (see Table A.5). It is likely that these estimates are too low. By way of comparison, a 2008 study commissioned by ADAGP estimated \$80 in spending per day by local attendees (vs. \$37 for in-town attendees or \$67 for day-trip attendees, as estimated here) and \$400 in spending per day by hotel attendees (vs. \$250 for overnight attendees, as estimated here). As noted, the intention of this report was to utilize conservative assumptions so as not to overstate impact estimates. If in fact the assumptions employed are too conservative, then the actual impact of the 2012 Auto Show is much higher than what is expressed here.

Table A.5 – Estimated Ancillary Spending by 2012 Auto Show Attendees and Exhibitors

Auto Show Attendees	Estimated # of Attendance Days	Estimated # of Room Nights	Estimated Spending per Day	Estimated Total Spending (\$M)
In-Town	66,790		\$37	\$2.50
Day Trip	168,727		\$67	\$11.49
Overnight	5,187	2,593	\$250	\$0.65
Subtotal, Auto Show Attendees	240,704	2,593		\$14.63
Black Tie Gala Attendees	Estimated # of Attendance Days	Estimated # of Room Nights	Estimated Spending per Day	Estimated Total Spending
Hotel	350	350	\$250	\$0.09
No Hotel (in-town)	1,126		\$37	\$0.04
No Hotel (day trip)	1,836		\$67	\$0.12
Subtotal, Black Tie Gala Attendees	3,312	350		\$0.25
Auto Show Exhibitors	Estimated # of Attendance Days	Estimated # of Room Nights	Estimated Spending per Room Night	Estimated Total Spending
Exhibitors	8,464	3,650	\$250	\$0.91
Subtotal, Auto Show Exhibitors	8,464	3,650		\$0.91
All Attendees and Exhibitors	Estimated # of Attendance Days	Estimated # of Room Nights		Estimated Total Spending (\$M)
Total, All Attendees and Exhibitors (2012)	252,480	6,593		\$15.79
Total, All Attendees and Exhibitors (2011)	225,596	4,553		\$14.03
% Change	+12%	+45%		+13%

Automobile Dealers Association of Greater Philadelphia (2011, 2012), US General Service Administration (2009), US Bureau of Labor Statistics (2009), Greater Philadelphia Cultural Alliance (2007), Econsult Corporation (2012)

APPENDIX B – ECONOMIC AND FISCAL IMPACT MODEL METHODOLOGY

B.1 Economic Impact Model

The methodology and input-output model used in this economic impact analysis are considered standard for estimating such expenditure impacts, and the results are typically recognized as reasonable and plausible effects, based on the assumptions (including data) used to generate the impacts. In general, one can say that any economic activity can be described in terms of the total output generated from every dollar of direct expenditures. If an industry in a given region sells \$1 million of its goods, there is a direct infusion of \$1 million into the region. These are referred to as *direct expenditures*.

However, the economic impact on the region does not stop with that initial direct expenditure. Regional suppliers to that industry have also been called upon to increase their production to meet the needs of the industry to produce the \$1 million in goods sold. Further, suppliers of these same suppliers must also increase production to meet their increased needs as well. These are referred to as *indirect expenditures*. In addition, these direct and indirect expenditures require workers, and these workers must be paid for their labor. These wages and salaries will, in turn, be spent in part on goods and services produced locally, engendering another round of impacts. These are referred to as *induced expenditures*.

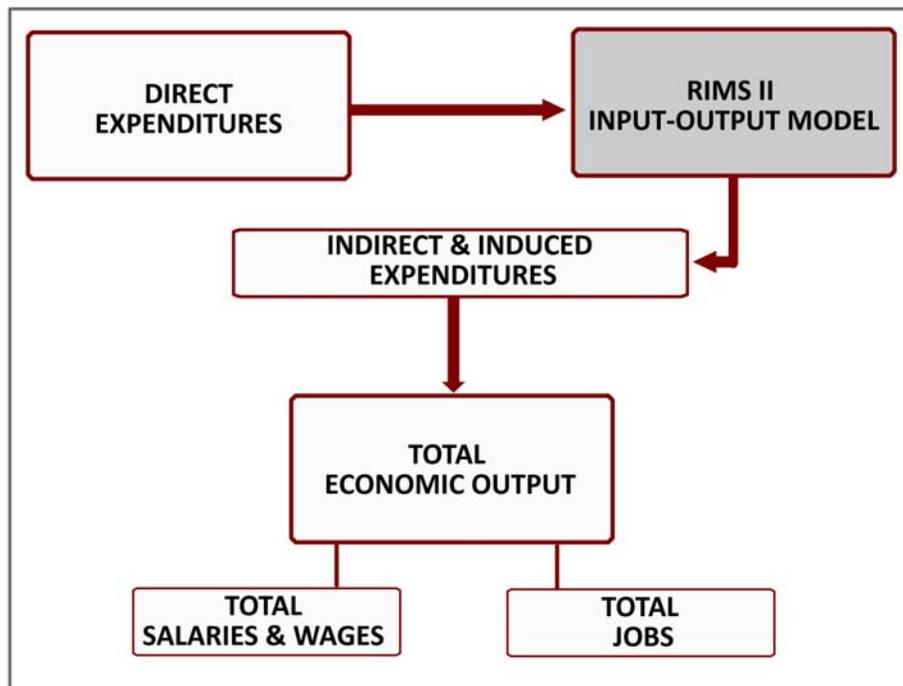
Direct expenditures are fed into a model constructed by Econsult Corporation and based on data provided by the US Department of Commerce's Bureau of Economic Analysis through its Regional Input-Output Modeling System (RIMS II). The model then produces a calculation of the total expenditure effect on the regional economy. This total effect includes the initial direct expenditure effect, as well as the ripple effects described, the indirect and induced expenditure effects.

Part of the total expenditure effect is actually the increase in total wages and salaries (usually referred to as earnings), which the model can separate from the expenditure estimates. Direct payroll estimates are fed into the "household" industry of the input-output model. Impacts of this industry are estimated using the personal consumption expenditure breakdown of the national input-output table and are adjusted to account for regional consumption spending and leakages from personal taxes and savings. The direct, indirect, and induced earnings represent a component of the total economic impact attributable to wages and salaries. Finally, the model calculates the total expenditures affecting the various industries and translates this estimate into an estimate of the total labor (or jobs) required to produce this output.¹³

¹³ In the input-output model, the estimate of increased employment will always be in terms of the employment required for a given level of production, usually referred to as *person-years* of employment. As such, these estimates cannot be interpreted as specifying *permanent jobs*.

In short, the input-output model estimates the total economic activity in a region that can be attributed to the direct demand for the goods or services of various industries. This type of approach is used to estimate the total economic activity attributable to the expenditures associated with various types of spending in the region.

Figure B.1 - Flowchart of Input-Output Methodology for Estimating Economic Impact



Source: Econsult Corporation (2009)

B.2 Fiscal Impact Model

The RIMS II model provides estimates of the economic impact of a new project or program on the regional economy. It does not, however, estimate the fiscal impact of the increased economic activity on state and local governments. Econsult has constructed a model that takes the output from the RIMS II model and generates detailed estimates of the increases in state and local tax collections that arise from the new project. Those revenues are in fact a part of the total economic impact of a new project that is often ignored in conventional economic impact analyses.

The RIMS II model provides estimates of direct, indirect, and induced expenditures, earnings, and employment within the defined region. The Econsult fiscal impact model combines the RIMS II output with U. S. Census Bureau County Business Patterns data to produce estimates of the distribution of additional employment and earnings by county. In addition, the 2000 Census “Journey to Work” data on commuting flows are utilized to estimate income earned by residents of each county within the region, regardless of where they work. The fiscal model can then estimate the increase in earned income taxes by county and for the state as a whole resulting from the new project. For complex cases, like Philadelphia, the model can differentiate between residents and nonresidents and apply the proper wage tax rate. Pennsylvania state business and sales taxes, as well as business taxes in Philadelphia, are estimated based on the most recent data on average sales tax base per employee by major industry, as contained in publications from the Pennsylvania Department of Revenue.

Figure B.2 – Glossary of Terms for Input-Output Models

Multiplier Effect – the notion that initial outlays have a ripple effect on a local economy, to the extent that direct expenditures lead to indirect and induced expenditures.

Economic Impacts – total expenditures, employment, and earnings generated.

Fiscal Impacts – local and/or state tax revenues generated.

Direct Expenditures – initial outlays usually associated with the project or activity being modeled; examples: one-time upfront construction and related expenditures associated with a new or renovated facility, annual expenditures associated with ongoing facility maintenance and/or operating activity.

Direct Employment – the full time equivalent jobs associated with the direct expenditures.

Direct Earnings – the salaries and wages earned by employees and contractors as part of the direct expenditures.

Indirect Expenditures – indirect and induced outlays resulting from the direct expenditures; examples: vendors increasing production to meet new demand associated with the direct expenditures, workers spending direct earnings on various purchases within the local economy.

Indirect Employment – the full time equivalent jobs associated with the indirect expenditures.

Indirect Earnings – the salaries and wages earned by employees and contractors as part of the indirect expenditures.

Total Expenditures – the sum total of direct expenditures and indirect expenditures.

Total Employment – the sum total of direct employment and indirect employment.

Total Earnings – the sum total of direct earnings and indirect earnings.

Source: Econsult Corporation (2009)

APPENDIX C – ADDITIONAL DETAIL ON INDUSTRY COMPOSITION OF EXPENDITURE AND EMPLOYMENT IMPACT OF 2012 PHILADELPHIA AUTO SHOW

Table C.1 – Estimated Industry Composition of Expenditure Impact within the City of Philadelphia from 2012 Auto Show (in \$M)

Rank	Industry	Output	% Total
1	Accommodation and food services	\$11.0	32.0%
2	Real estate and rental and leasing	\$5.2	15.0%
3	Transportation and warehousing	\$3.9	11.4%
4	Retail trade	\$2.3	6.8%
5	Professional, scientific, and technical services	\$1.9	5.5%
6-19	All other industries	\$10.0	29.2%
	Total	\$34.3	100.0%

Automobile Dealers Association of Greater Philadelphia (2012), US Department of Commerce (2009), Econsult Corporation (2012)

Table C.2 – Estimated Industry Composition of Employment Impact within the City of Philadelphia from 2012 Auto Show

Rank	Industry	Output	% Total
1	Accommodation and food services	190	52.1%
2	Transportation and warehousing	62	16.9%
3	Retail trade	26	7.1%
4	Health care and social assistance	22	6.2%
5	Administrative and waste management services	18	4.9%
6-19	All other industries	45	12.4%
	Total	363	100.0%

Automobile Dealers Association of Greater Philadelphia (2012), US Department of Commerce (2009), Econsult Corporation (2012)

Table C.3 – Estimated Industry Composition of Expenditure Impact within the Commonwealth of Pennsylvania from 2012 Auto Show (in \$M)

Rank	Industry	Output	% Total
1	Accommodation and food services	\$11.3	23.8%
2	Real estate and rental and leasing	\$6.1	12.9%
3	Manufacturing	\$5.0	10.4%
4	Transportation and warehousing	\$4.5	9.5%
5	Retail trade	\$3.6	7.5%
6-19	All other industries	\$17.1	36.0%
	Total	\$47.6	100.0%

Automobile Dealers Association of Greater Philadelphia (2012), US Department of Commerce (2009), Econsult Corporation (2012)

Table C.4 – Estimated Industry Composition of Employment Impact within the Commonwealth of Pennsylvania from 2012 Auto Show

Rank	Industry	Output	% Total
1	Accommodation and food services	260	40.8%
2	Transportation and warehousing	100	15.7%
3	Retail trade	61	9.5%
4	Health care and social assistance	46	7.2%
5	Administrative and waste management services	35	5.5%
6-19	All other industries	136	21.4%
	Total	638	100.0%

Automobile Dealers Association of Greater Philadelphia (2012), US Department of Commerce (2009), Econsult Corporation (2012)

APPENDIX D – ADDITIONAL DETAIL ON FISCAL IMPACT OF 2012 PHILADELPHIA AUTO SHOW

Table D.1 – Estimated Fiscal Impact of 2012 Auto Show for the City of Philadelphia (in \$M)

City of Philadelphia	From Direct Expenditures	From Ancillary Spending	Total Local Tax Amount
Wage and Earnings	\$0.14	\$0.17	\$0.31
Sales	\$0.02	\$0.11	\$0.13
Business Privilege	\$0.02	\$0.08	\$0.10
Hotel	\$0.00	\$0.08	\$0.08
Parking		\$0.14	\$0.14
Amusement		\$0.08	\$0.08
Total City Tax Revenues	\$0.17	\$0.67	\$0.84

Automobile Dealers Association of Greater Philadelphia (2012), US Department of Commerce (2009), Econsult Corporation (2012)

Table D.2 – Estimated Fiscal Impact of 2012 Auto Show for the Commonwealth of Pennsylvania (in \$M)

Commonwealth of Pennsylvania	From Direct Expenditures	From Ancillary Spending	Total State Tax Amount
Personal Income	\$0.14	\$0.33	\$0.48
Sales and Use	\$0.11	\$0.64	\$0.75
Corporate Net Income	\$0.03	\$0.26	\$0.30
Hotel	\$0.00	\$0.06	\$0.06
Total Commonwealth Tax Revenues	\$0.29	\$1.30	\$1.58

Automobile Dealers Association of Greater Philadelphia (2012), US Department of Commerce (2009), Econsult Corporation (2012)