

State PnL "Picker" Tool Documentation

0. Highlights

The State PnL tool:

- a. Is Amtrak's technical means of computing the PRIIA 209 Route Costs, Additives, and Revenue for all state-supported routes;
- b. Extracts cost information directly from the APT system;
- c. In some cases, has more detailed formulas for Route Costs than those in Appendix E of the Methodology;
- d. Adjusts certain APT allocations for base-increment routes.

1. Purpose and Context

a. Document purpose

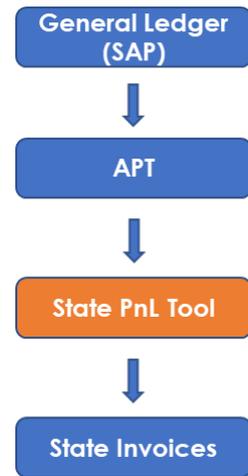
The purpose of this document and its companion workbook is to document how the output of Amtrak's cost allocation system, APT, is processed to calculate state payments as set forth in the PRIIA Section 209 Cost Methodology Policy. Detailed documentation of this process was identified as a gap in SAIPRC members' understanding of the cost allocation process in a prior review of the Route Costs ("Task 1"). In some cases, this document may also provide more specific or complete formulas for the Route Cost categories as they relate to APT, than are available in the PRIIA 209 Methodology document itself.

The primary means of processing cost data for state invoices is known as the State Profit & Loss or State PnL tool (previously described as the "Picker" tool). The basic function of the State PnL tool is to retrieve and organize elements of Amtrak's APT system into the Route Cost categories described in the PRIIA 209 Methodology. For each state-supported route, the tool automatically selects the cost items associated with each Route Cost Category and sums the costs. The resulting output forms the basis for the invoices that state agencies receive. Certain data processing steps outside the State PnL tool are also documented.

b. High-level description of related systems and processes

The State PnL tool is one step in a process that begins with Amtrak incurring a non-capital cost and ends with state agencies paying their share of that cost as prescribed by the PRIIA 209 Methodology. The broader process can be described roughly as follows:

1. Amtrak incurs costs such as labor, facilities, materials, services, and insurance, and collects revenue from ticket sales and other sources.
2. Costs and revenues are entered into Amtrak’s general ledger system (currently SAP). Costs enter the general ledger directly and through related feeder systems.
3. After the general ledger is closed at the end of the month, the general ledger data is passed to the APT system.
4. All of the costs and revenues from the general ledger are allocated to individual Amtrak routes via APT, a system of allocation rules based on code elements from the SAP system.
5. Output from the APT system is organized into Route Cost Categories and revenue categories, per the PRIIA 209 methodology, via the State PnL tool.
6. States are invoiced per the terms of their individual contracts. In certain cases, some adjustments may be made to the State PnL tool output prior to invoicing.



Simplified diagram of cost allocation process

c. Basics of Allocation in APT

Code Blocks

All costs entered into Amtrak’s SAP system have a code block that includes the following four elements:

1. **Cost Center**, an organizational unit within Amtrak, generally with staff and a supervisor.
2. **Internal Order**, which identifies the task or work being performed. The same internal order may be used across multiple Cost Centers.
3. **Work Breakdown Structure (WBS) Element**, which is used to further distinguish the location and nature of the project/work performed, as well as any special projects. WBS Elements are also used across multiple Cost Centers.
4. **(General Ledger) Account**, which identifies various types of expenses (e.g., wages).

Together, these elements constitute a code block. Before allocation begins, all costs associated with the same code block are aggregated for a one-month period. Elements of the code block can then be used to allocate costs to specific routes. In the APT system, all costs are allocated to one or more routes. In some cases, an APT “route” represents activity at Amtrak that is not necessarily an actual passenger train route, such as real estate revenue and certain station costs.

Allocation Rules

Costs are allocated proportionally to routes based on each route's share of some total quantity. For example, certain locomotive maintenance costs are allocated proportionally to locomotive miles on P42 locomotives.

Many costs in APT are associated with a "statistic" and in some cases a "stat qualifier" which together indicate how the cost is allocated. The statistic indicates the quantity to be used, and the stat qualifier indicates the universe to which the statistic applies. In the above example, "locomotive miles" would be the statistic and "P42 locomotives" would be the stat qualifier.

In some cases, costs are allocated only within a specific "train group" (for example, all trains that receive turnaround service at the same facility). Together, the statistic, stat qualifier, and train group determine the basis for a proportional allocation.

2. Main Functions of State PnL Tool

The APT system allocates all costs incurred by Amtrak to a train, and by extension to a route. However, the PRIIA 209 Cost Methodology Policy specifies that only certain costs are to be charged to state agencies. Furthermore, those costs may be categorized differently in the Methodology than they are in APT. As a result, APT output must be processed to conform with the structure set forth in the Methodology before Amtrak can invoice its state partners.

The PnL tool is the mechanism by which Amtrak processes APT data to prepare state invoices. The core function of the tool is to organize elements of Amtrak’s APT system into the cost categories described in the PRIIA 209 methodology, which is done in three steps. The PnL tool:

1. Queries the APT database for relevant costs and revenues
2. Sums the costs for each Revenue and Route Cost category
3. Computes the additive costs for each route based on the Route Costs and Revenues as calculated by the tool

The resulting output forms the basis for the invoices that state agencies receive.

a. Route Cost Definitions

Summary definitions for each Route Cost can be found in Appendix E of the Cost Sharing Methodology. In some cases, the PnL tool contains additional detail beyond what is in the PRIIA 209 methodology. This means that the tool itself plays a role in assembling the Route Costs. Additionally, the additive rates applied to each route are maintained in a table within the PnL tool for use in the billing process.

b. Data Requirements

The tool collects only as much cost detail from the APT database as is necessary to make the appropriate calculations, making it an efficient way to calculate state payments, but a poor resource for cost validation. Table 1 provides examples of this process.

Table 1: Example Data Queries in State PnL Tool

For route cost...	the Appendix E definition is...	and the PnL tool...
T&E Crew Labor	APT subcategory FM_302_1	Queries total costs associated with FM_302_1
Yard Operations	APT subcategories 303_2 and 303_4 <i>excluding</i> mechanical direct costs	<ol style="list-style-type: none"> 1. Queries: <ol style="list-style-type: none"> a. Total costs from FM_303_2 b. Total costs from FM_303_4 c. The subset of costs from FM_303_2 corresponding to “mechanical direct costs” d. The subset of costs from FM_303_4 corresponding to “mechanical direct costs” 2. Sums the total costs (items a and b) and subtracts the mechanical direct costs (items c and d).

c. Software/Computing Environment

The APT data is stored in an SQL database environment. The PnL tool itself is an Excel workbook with some specialized add-in software that allows it to directly query the APT database. Individual cells from the workbook are populated with data from the APT database, and some simple additional calculations are performed in the Excel environment.

d. Change Management and Ongoing Maintenance

Periodic changes to the tool may be necessary resulting from changes to the APT system or the PRIIA 209 Methodology. For instance, due to internal changes at Amtrak in FY18, the Station Technology Route Cost was modified to include a particular WBS Element in a particular APT subfamily. It had previously been defined by a single Cost Center.

This document (including Appendix 1 and the companion Excel Workbook) provides the necessary information to identify the costs that make up each Route Cost Category. As APT evolves in the future, this material or a suitable substitute will have to be updated to maintain comprehensive documentation.

e. Relationship to Cost Validation Reports

The State PnL tool relies on the same source information as the Cost Validation Reports that states receive on a monthly basis; both processes involve querying APT data and organizing it by PRIIA 209 Route Cost category. However, the tool is managed completely separately from the Cost Validation Reports (which are generated by Amtrak's IT department) and collects far less detailed cost data. The totals for each Route Cost category computed by the tool should nevertheless exactly match the Cost Validation Reports.

f. Relationship to Appendix E of PRIIA 209 Methodology

The State PnL tool can be considered a working version of Appendix E. In some cases, the two sources match exactly; in other cases, the sources match but the PnL tool is more specific; and in a few cases, the PnL tool and Appendix E differ in how they define a Route Cost category, suggesting that the Methodology may need to be updated to ensure consistency with current practice.

3. Northeast Corridor Cost Adjustments

a. Overview

For state-supported base-increment routes (i.e. routes which include a section on the Northeast Corridor between Washington DC and Boston), the State PnL tool makes certain additional adjustments to APT allocations, specifically to remove a portion of revenue and certain Route Costs associated with these routes.

Adjustments are made to all categories of revenue and to five Route Cost categories:

- Commissary Provisions (part of OBS Crew and Provisions)
- Commissions
- Reservations and Call Centers
- Customer Concessions
- Insurance

For revenue, the tool adjusts the allocation of “through revenue,” the subset of a route’s revenue associated with trips that traverse both the Northeast Corridor (NEC) and a state-supported segment.

The PRIIA 209 policy requires that costs and revenues be prorated between the NEC and state-supported legs of base-increment routes. While the policy does not specify how prorating should occur, most costs are split between the NEC and state-supported legs in APT, which generally treats the two legs as separate routes.

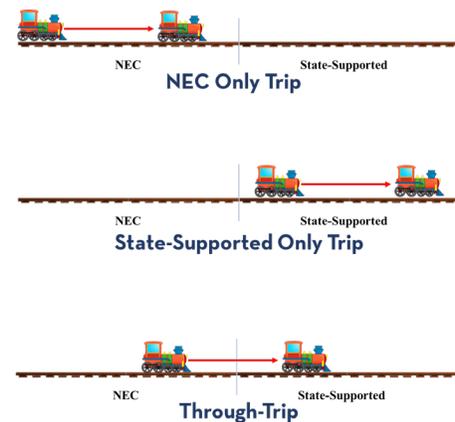
In certain cases, however, APT does not adequately separate certain types of revenue and costs between the two legs, which the PnL tool must adjust.

First, APT assigns through revenue entirely to the state-supported leg. To correct this issue, the PnL tool splits through revenue between the two segments (as described in Section 3b below).

Second, APT over allocates certain costs to the state-supported leg, which must be corrected. Specifically, there are costs that APT allocates proportionally based on passenger revenue. Since APT’s default results allocate all through-revenue to the state-supported leg, a portion of these costs are over-allocated to the state-supported leg. Similarly, in some other cases, the costs in APT are allocated proportionally to passenger miles. However, the default statistic in APT for passenger miles assigns all passenger miles associated with through-trips to the state-supported leg (when, in fact, those passenger miles should be split between the NEC and state-supported leg). As a result, if a cost is allocated proportionally to passenger miles, APT over-allocates the cost to the state-supported leg.

To address this over-allocation, the APT results for these costs must be adjusted in the State PnL tool using alternative statistics for revenue and passenger miles which better reflect the portions of through-trips taken on the NEC and state-supported legs.

Trip Types on Base-Increment Routes



These adjustments are required, in part, because of limitations in Amtrak’s Train Earnings System, which does not currently allow for the passenger miles and revenue associated with through-trips to be split between the NEC and state-supported legs prior to being fed into the APT system. However, future versions of the Train Earnings System are planned to ultimately address this issue, which should obviate the need for many of these functions within the State PnL tool.

The PRIIA 209 policy does permit states to claim through-revenue if they pay a 25 cent per passenger mile fee on the NEC portion of all passenger trips. The adjustments made by the tool are still necessary, however; only once the revenue and cost adjustments are made can the 25-cent charge and the through-revenue credit to states be properly executed.

b. Descriptions of Adjusted Allocation Statistics

Passenger Miles

The “passenger miles” allocation statistic in APT associates all passenger miles from through-trips to the state-supported route. The State PnL tool uses an alternative passenger miles statistic that relies on ticket data to split passenger miles from each through trip into separate NEC and state-supported portions.

Passenger Revenue

“Passenger revenue” is itself an allocation statistic; in other words, some costs in APT are allocated proportionally to revenue. The passenger revenue allocation statistic in APT associates all revenue from through-trips with the state-supported route. The State PnL tool uses an alternative statistic that allocates revenue from each ticket sold proportionally to the respective trip mileage on the NEC and state-supported legs.

c. Descriptions of Cost and Revenue Adjustments

Revenue

Revenue from all sources – ticket, food and beverage, and other – is adjusted in the State PnL tool. In APT, revenue associated with through-trips is allocated only to the state-supported leg and thus over-allocated to the state-supported route. The PnL tool isolates the through-revenue and reallocates it based on the adjusted passenger revenue statistic.

Cost: Commissary Provisions

“Commissary Provisions” refers to a subset of the “OBS Crew and Provisions” Route Cost described in the PRIIA 209 Methodology. Commissary Provisions includes only food, beverages, and supplies (no labor). In APT, all such costs are directly assigned to an individual train. The State PnL tool reallocates the costs of commissary provisions using the adjusted passenger revenue statistic.

Cost: Commissions

The Commissions Route Cost category represents payments to travel agencies and other sales channels. These costs are allocated in APT, for the most part, proportionally to passenger revenue (94.8% of Commissions costs were allocated by revenue in FY17, according to AECOM’s “Task 1” report for SAIPRC). Since APT over-allocates revenue to the state-supported leg, these costs are over-allocated to the state-supported leg, as well. As a result, the

PnL tool re-allocates total Commissions between the NEC and state-supported leg using the adjusted passenger revenue statistic.

Reservations and Call Centers

The Reservations and Call Centers Route Cost category is associated with Amtrak's in-house and contract contact centers. Costs from contact center activities are allocated in APT based on an ongoing survey of inbound calls. For the survey, consultant staff listen to a random sample of calls and assign each call to a specific route. Calls may be assigned based on city pair, train number, or route name. Costs are allocated proportional to the total call time associated with each route.

Calls pertaining to through-trips and certain NEC-only trips may therefore be assigned to the state-supported route on which they took place. As a way of correcting this, the State PnL tool reallocates all Reservations and Call Centers Route Costs between the NEC and state-supported legs using the adjusted passenger miles statistic.

In the call survey, calls associated with a certain OD pair (for instance, New York Penn Station to Philadelphia 30th St. Station) are allocated across all routes that serve that pair, including state-supported base-increment routes. As a result, state-supported routes may be allocated costs for calls related to trips that the states do not receive revenue for. The PnL tool does not have a mechanism for correcting this.

Customer Concessions

The Customer Concessions Route Cost category accounts for passenger refunds, vouchers, and other compensation. This Route Cost category has largely been abandoned as accounting practices have changed; most customer concessions are now accounted for as debits to revenue. However, a small number of customer concessions costs are still captured in this category (less than \$75,000 for all state routes in FY19).

The remaining Customer Concessions costs are allocated in APT proportionally to (unadjusted) passenger revenue. The State PnL Tool reallocates Customer Concessions Route Costs between the NEC and state legs proportionally to passenger miles. APT allocates Customer Concessions based on revenue, while the PnL tool makes an adjusted based on passenger miles. This is a known discrepancy. However, there is very little expense in this category, making the difference between adjustments based on revenue vs. passenger miles trivial.

Insurance

The Insurance Route Cost category covers purchased insurance and self-insurance costs incurred by Amtrak. Insurance costs are allocated in APT primarily by two statistics, (unadjusted) passenger miles and total allocated costs, both of which are overallocated to state-supported routes in APT. The State PnL tool adjusts Insurance Route Costs by reallocating between the NEC and state-supported legs proportionally to passenger miles.

Because these costs are reallocated in the State PnL tool entirely by passenger miles, and not partially by total allocated costs (as would be the default in APT), the tool slightly overcompensates in this adjustment to the benefit of the state-supported routes. In other words, costs allocated by the "total allocated costs" statistic requires a smaller adjustment than is made through the adjusted passenger miles statistic.

3. Cost Adjustments Outside the PnL Tool

Only in certain circumstances should the invoiced totals for a Revenue or Route Cost Category differ from the output of the PnL tool. One obvious case is when states are on a fixed-revenue or fixed-cost contract for some or all categories. (In the case of fixed payments, the results of the tool are important as an input into future cost or revenue forecasts, but not current-year payments.)

The other reason invoices may differ from the PnL tool relates to how fuel costs are paid per state contracts. States may pay fuel costs as allocated in APT, in which case fuel costs will exactly match what is supplied by the PnL tool. On other routes, states may pay based on other approaches for estimating fuel costs, such as a fixed cost per delivery, or a per-gallon price based on the average local fuel price for the month. In those cases, fuel costs in the PnL (which match APT) may differ from fuels costs in state invoices.

Appendix I: Detailed Cost Assignment

The companion workbook is the definitive source for how costs are assigned to PRIIA 209 Methodology categories. However, Route Cost category formulas derived from the PnL tool are listed below for ease of reference, and to enable a comparison with Appendix E of the PRIIA 209 Methodology.

Cost Category	Formula (Appendix E)	Formula Derived from PnL Tool	Notes
Host Railroad Maintenance of Way	FM_307(Host RR) less incentives, less Host RR fuel, less Host RR MoE, less Amtrak Host Railroad Contract Group staff	APT Subfamily FM_307, with the following Cost Center and accounts excluded: - CC_0816 (Host Railroad Contracts) - AC_510401 (Locomotive Rent) - AC_510412 (Train fuel Host RRs) - AC_510999 (Train Fuel Railroads - Accrual) - AC_570891 (Schedule Adherence - Payments) - AC_570999 (Schedule Adherence - Accrual) - AC_570893 (Railroad Collectable OTP Penalty) - AC_520503 (Railroad - Rolling Stock Maint) - AC_520505 (Railroad - Train Supplies and Exp)	The formula derived from the PnL tool is consistent with, but more detailed than, the Appendix E formula.
Host Railroad Performance Incentives	FM_307(Host RR) Schedule Adherence and related accounts	The following subset of accounts from APT Family FM_307: AC_570891 (Schedule Adherence - Payments) AC_570999 (Schedule Adherence - Accrual) AC_570893 (Railroad Collectable OTP penalty) AC_570401 (Locomotive Rent (can be waived))	The formula derived from the PnL tool is consistent with, but more detailed than, the Appendix E formula. Costs in AC_570401 (Locomotive Rent) have been waived in the past on a case-by-case basis.
Fuel and Power	FM_304(Fuel) + FM_307(Host RR) fuel account + FM_305(Trans-Multiple) fuel account +FM_308(Trans-Support) fuel account + FM_309(Electric Traction)	All of APT Subfamily FM_304 (Fuel) The following accounts from APT Subfamily FM_307 (Host RR): - AC_510412 (Train Fuel Host RRs) - AC_510999 (Train Fuel Railroads - Accrual) One account from APT subfamily FM_308 (Trans-Support): -AC_510411 (Train Fuel and Power) One account form APT family FM_G_A (General and Administrative): -AC_74097_H2 (Train Fuel and Power) All of FM_309 (Power - Electric Traction)	The formula derived from the PnL tool is mostly consistent with, but more detailed than, the Appendix E formula. The PnL tool includes two accounts from FM_307 - one for fuel and one for "accrual" - while Appendix E only mentions one fuel account.

Cost Category	Formula (Appendix E)	Formula Derived from PnL Tool	Notes
Train & Engine (T&E) Crew Labor	FM_302_1 (T&E Crew)	All of APT subcategory FM_302_1 (T&E Crew)	The formula derived from the PnL tool is equivalent to the formula in Appendix E.

Cost Category	Formula (Appendix E)	Formula Derived from PnL Tool	Notes
Car & Locomotive Maintenance and Turnaround	FM_201 (MoETurnaround) + FM_202 (MoELocoMaint) + FM_203 (MoECarMaint) + FM_205(MoeMultiple,direct internal orders only) + FM_307 (Host RR, MoE account only)	<p>All of APT subfamily FM_201 (MoE Turnaround)</p> <p>All of APT subfamily FM_202 (MoE Loco Maintenance)</p> <p>All of APT subfamily FM_203 (Moe Car Maintenance)</p> <p>Two accounts from APT subfamily FM_307: -AC_520503, RAILROAD-ROLLING STOCK MAINT -AC_520505, RAILROAD-TRAIN SUPPLIES+EXP</p> <p>24 Internal Orders from APT subfamily FM_205 (Moe Multiple): -IO_1828 (TRAIN & CONSIST TURNAROUND SERVICE) -IO_1862 (LOCO-DIESEL TURNAROUND SVC) -IO_1862 (LOCO-DIESEL TURNAROUND SVC) -IO_1851 (CONTRACT ROLL STK MGT/MAINT) -IO_1988 (PSG COMMON-TRAIN RIDERS) -IO_1863 (LOCO-DIESEL PROGRAM SVC) -IO_1864 (LOCO-DIESEL BAD ORDERS) -IO_1865 (LOCO-DIESEL LIGHT OVERHAUL) -IO_1866 (LOCO-DIESEL MODS/CONV/TESTING) -IO_1867 (LOCO-DIESEL WRECK & ACCIDENT) -IO_1822 (LOCO-ELECTRIC PROGRAM SVC) -IO_1823 (LOCO-ELECTRIC BAD ORDERS) -IO_1824 (LOCO-ELECTRIC LIGHT OVERHAUL) -IO_1827 (LOCO WARRANTY) -IO_1825 (LOCO-ELECTRIC MODS/CONV/TESTING) -IO_1826 (LOCO-ELECTRIC WRECK & ACCIDENT) -IO_1826 (LOCO-ELECTRIC WRECK & ACCIDENT) -IO_1820 (SPECIAL TRAINS M OF E) -IO_1829 (CAR PROGRAM MAINT.) -IO_1830 (CAR BAD ORDERS) -IO_1831 (CAR MODS/CONV/TEST) -IO_1832 (CAR LIGHT OVERHAUL) -IO_1833 (CAR WRECK & ACCIDENT) -IO_1834 (CAR WARRANTY) -IO_1836 (FREEZE DAMAGE REPAIR)</p>	The formula derived from the PnL tool appears to be slightly different, and more specific, than the Appendix E formula. The PnL tool specifies the "direct internal orders" described in Appendix E. It also includes two accounts from FM_307, rather than the single account implied in Appendix E.

Cost Category	Formula (Appendix E)	Formula Derived from PnL Tool	Notes
On Board Passenger Technology	CC_1109 (On-Board Passenger Technology)	Cost Center CC_1109 (On-Board Passenger Technology) One WBS Element from APT subcategory FM_602_05 (IT Operations): -W_RG_333 (Onboard Passenger Technology)	The formula derived from the PnL tool appears to be different from the formula in Appendix E. Appendix E does not identify certain costs in FM_602-05 which are included per the PnL tool.
OBS Crew & Provisions	FM_301_1 (OBS Crew) + FM_301_2 (OBS Supplies)	- All of APT subcategory FM_301_1 (OBS Crew) - All of APT subcategory FM_301_2 (OBS - Supplies - F and B)) excluding the following accounts: AC_540321 (Linen) AC_540326 (Laundry) AC_540301 (Crew Layover) AC_540302 (Crew Meals (Payroll)) AC_540303 (Crew Transportation) AC_540306 (Crew Meals (F and B stock))	The PnL Tool differs slightly from the formula as described Appendix E, in that it excludes six accounts from FM_301_2. It also refers to this category as "Commissary Provisions and Management."

Cost Category	Formula (Appendix E)	Formula Derived from PnL Tool	Notes
Route Advertising	Specific expenses for programs agreed upon between States and Amtrak.	<p>The following WBS Elements for Account AC_740262_H2 (Advertising & Sales) in all of APT:</p> <ul style="list-style-type: none"> -W_B_MK_100391_0001 (STATE SUPPORTED TRAINS-MAINE) -W_B_MK_100391_0002 (STATE SUPPORTED TRAINS-NEW YORK) -W_B_MK_100391_0003 (STATE SUPPORTED TRAINS-PENNSYLVANIA) -W_B_MK_100391_0004 (STATE SUPPORTED TRAINS-VERMONT) -W_B_MK_100391_0007 (STATE SUPPORTED TRAINS-VIRGINIA) -W_B_MK_100391_0008 (SURFLINER MKT-ADV) -W_B_MK_100391_0009 (CAPITOLS MKT-ADV) -W_B_MK_100391_0010 (SAN JOAQUINS MKT-ADV) -W_B_MK_100391_0011 (CASCADES MKT-ADV) -W_B_MK_100391_0012 (STATE SUPPORTED TRAINS-MICHIGAN) -W_B_MK_100391_0013 (STATE SUPPORTED TRAINS-OKLAHOMA) -W_B_MK_100391_0014 (STATE SUPPORTED TRAINS-ILLINOIS) -W_B_MK_100391_0015 (STATE SUPPORTED TRAINS-MISSOURI) -W_B_MK_100391_0016 (STATE SUPPORTED TRAINS-WISCONSIN) -W_B_MK_100391_0017 (STATE SUPPORTED TRAINS-NORTH CAROLINA) -W_B_MK_100391_0019 (STATE SUPPORTED TRAIN MIDWEST) -W_B_MK_100391_0020 (LAS VEGAS MKT-ADV) -W_B_MK_100391_0022 (STATE SUPPORTED TRAINS-TEXAS) -W_B_MK_100391_0023 (STATE SUPPORTED TRAINS-INDIANA) -W_B_MK_100391_0024 (STATE SUPPORTED TRAINS-CONNECTICUT) -W_B_MK_100391_0046 (STATE SUPPORTED TRAINS-OREGON) -W_B_MK_100391_0025 (STATE SUPPORTED TRAINS-MASSACHUSETTS) 	The formula derived from the PnL tool is consistent with, but more detailed than, the Appendix E formula. The WBS elements specified in the PnL tool should only contain "specific expenses for programs agreed upon between States and Amtrak."
Reservations & Call Centers	FM_402 (Information & Reservations) less information technology related costs in cost centers CC_1112, CC_1132, CC_1306, CC_1362	<p>The following Cost Centers:</p> <ul style="list-style-type: none"> -CC_1091 (Reservation Sales) -CC_1092 (Mid Atlantic RSCC) -CC_1093 (Mid-West RSCC) -CC_1097 (Western RSCC) -CC_1114 Xcontact Center Support) -CC_B_402_0 (Budget Information and Reservations) 	It is possible that the formulas from Appendix E and the PnL tool are equivalent, but it is not possible to tell with the existing documentation. In this case, the Appendix E and PnL tool formulas for the route cost category are constructed completely differently. The formula in the PnL tool identifies a few specific Cost Centers, while the formula in Appendix E describes an APT subfamily with certain costs subtracted.

Cost Category	Formula (Appendix E)	Formula Derived from PnL Tool	Notes
Stations–Route	FM_310_1 (Stations - Route)	<p>A subset of accounts from APT subcategory FM_310_1 (Stations-Route), specifically:</p> <ul style="list-style-type: none"> AC_740249_H2, salaries AC_740250_H2, wages and overtime AC_740252_H2, employee benefits expenses AC_740254_H2, employee related AC_740256_H2, train operations AC_740257_H2, fuel power and utilities AC_740258_H2, materials AC_740259_H2, facility communication and office AC_740262_H2, advertising and sales AC_740265_H2, casualty and other claims AC_740266_H2, depreciation AC_740267_H2, amort of gain on sale/leaseback AC_740268_H2, other expenses AC_740269_H2, indirect costs capitalized to p and e 	<p>It is possible that the formulas from Appendix E and the PnL tool are equivalent, but it is not possible to tell with the existing documentation. The PnL tool selects only certain accounts, while Appendix E implies that the full subcategory is included.</p>
Stations–Shared	<p>FM_310_2 (Stations–Shared (Commuters Present)) and FM_310_3 (Stations–Shared (No Commuters Present)). APT update: at stations with a ticket counter, ticketing costs are allocated based on routes’ usage of the ticket counter.</p>	<p>A subset of accounts from APT subcategory FM310_2 (Stations - Shared (Commuters Present)) AND APT subcategory FM_310_3 (Stations - Shared (No Commuters Present)), specifically:</p> <ul style="list-style-type: none"> -AC_740249_H2 (Salaries) -AC_740250_H2 (Wages & Overtime) -AC_740252_H2 (Employee Benefits Expenses) -AC_740254_H2 (Employee Related) -AC_740256_H2 (Train Operations) -AC_740257_H2 (Fuel Power & Utilities) -AC_740258_H2 (Materials) -AC_740259_H2 (Facility Communication & Office) -AC_740262_H2 (Advertising & Sales) -AC_740265_H2 (Casualty & Other Claims) -AC_740266_H2 (Depreciation) -AC_740267_H2 (Amort of Gain on Sale/Leaseback) -AC_740268_H2 (Other Expenses) -AC_740269_H2 (Indirect Costs Capitalized to P&E) 	<p>The formula derived from the PnL tool appears to be different from the formula in Appendix E. Appendix E suggests that the full APT subcategories are included in the category, while the PnL tool appears to identify a subset of accounts.</p>

Cost Category	Formula (Appendix E)	Formula Derived from PnL Tool	Notes
Station Technology	CC_1110 (Station Technology)	<ul style="list-style-type: none"> - Cost Center CC_1110 (Station Technology) - One WBS element from APT subcategory FM_602_05, IT operations, specifically W_RG_333, onboard passenger technology 	The IT elements of Station Technology were moved into a centralized IT Cost Center, which is reflected in the PnL tool but not in Appendix E
Commissions and Reservation System Access	Commission accounts in multiple families for credit card sales, travel agents, interline commission expenses, and airline and other reservation system access fees	<p>Two accounts from APT subfamily FM_401 (Sales), specifically:</p> <ul style="list-style-type: none"> -AC_553241 (Commissions - Travel Agents) -AC_553246 (Interline Commission Expense) <p>Four accounts from APT family FM_G_A, specifically:</p> <ul style="list-style-type: none"> -AC_553240 (Commissions-F and B Credit Cards) -AC_553242 (Commissions-Credit Cards) -AC_553241 (Commissions-Travel Agents) -AC_553246 (Interline Commission Expense) 	The formula derived from the PnL tool is consistent with, but more detailed than, the Appendix E formula.
Customer Concession (PsgInconv)	Passenger inconvenience accounts in FM_400 (Marketing) and FM_G_A (General & Administrative)	One account from APT family FM_G_A (General and Administrative) AND APT subfamily FM_401, specifically AC_740140_H2 (Passenger Inconvenience)	It is possible that the formulas from Appendix E and the PnL tool are equivalent, but it is not possible to tell with the existing documentation. The PnL Tool assigns an account from a subfamily FM_401, rather than the full family, FM_400, as described in Appendix E.

Cost Category	Formula (Appendix E)	Formula Derived from PnL Tool	Notes
Connecting Motor Coach	FM_306 (Train Movement) Connecting Motor Coach account	One account from APT subfamily FM_306 (Train Movement), specifically AC_510435 (Connecting Motor Coach)	The formula derived from the PnL tool is equivalent to the formula in Appendix E.
Regional/Local Police	FM_901_2 (Police - Regional/Local), excluding nationally allocated costs	APT subfamily FM_901_2 excluding any costs allocated by the following allocation statistics: -ST_TDC_DBX - Ops Trans Direct Costs -ST_MDC_DBX - Mechanical Direct Costs)	The formula derived from the PnL tool is equivalent to the formula in Appendix E.

Cost Category	Formula (Appendix E)	Formula Derived from PnL Tool	Notes
Block & Tower Operations	Specific cost centers in FM_306 (Train Movement)	A subset of the Cost Centers from APT subfamily FM_306 (Train Movement), specifically: -CC_5152 (BLOCKS & TOWERS-ZOO) -CC_5154 (BLOCKS & TOWERS - K TOWER) -CC_5157 (BLOCKS & TOWERS-OVERBROOK) -CC_5159 (BLOCKS & TOWERS-PAOLI) -CC_5160 (BLOCKS & TOWERS-THORN) -CC_5161 (BLOCKS & TOWERS-CORK) -CC_5162 (B&T-STATE) -CC_5180 (MNGR OF TRAIN MOVEMENT BLOCKS AND TOWERS) -CC_5181 (TEMPORARY BLOCK-PHL) -CC_5182 (BLOCKS & TOWERS XBD-PHL) -CC_5353 (Q BLK SUNNYSIDE NY) -CC_5354 (R BLK SUNNYSIDE NY) -CC_5373 (AMT/LIRR JOINT VENTURE) -CC_5378 (LAB Block Operators - Hudson Line - NY) -CC_5380 (MOVEMENT OFFICE-NEW YORK) -CC_5382 (BLK OPER-EXTRABOARD-NY) -CC_5558 (CONN BLK CT) -CC_5580 (CETC OFFICE BOSTON) -CC_5582 (BLK OPER-EXTRABOARD-NEW ENGLAND)	The formula derived from the PnL tool is consistent with, but more detailed than, the Appendix E formula.
Terminal Yard Operations	Allocations in FM_303_2(Yard - Train & Equipment Moves) + FM_303_4(Yard - Terminal Rent/Yard Services) based on train equipment makeup and breakup for revenue service at terminals	APT subcategories FM_303_2 and FM_303_4 excluding any costs allocated by allocation statistic ST_MDC_DBx (Mechanical direct costs)	The formula derived from the PnL tool is equivalent to the formula in Appendix E.

Cost Category	Formula (Appendix E)	Formula Derived from PnL Tool	Notes
Terminal MoW	Allocations in specific cost centers in FM_MOW (Maintenance of Way) based on train equipment makeup and breakup for revenue service at terminals	The following Cost Centers: -CC_3303 (Engineer Track) -CC_3304 (Engineer C and S) -CC_3403 (District Engineer) -CC_3404 (Div Oakland Maint Facility) -CC_3406 (Div Seattle Maint Facility) excluding any costs allocated by allocation statistic ST_MDC_DBx (Mechanical Direct Costs)	The formula derived from the PnL tool is consistent with, but more detailed than, the Appendix E formula.
Insurance	Allocated insurance expense in FM_G_A (General & Administrative)	A subset of accounts from APT family FM_G_A: AC_555602 - Liability insurance AC_555700 - PRIL Reinsurance premiums ceded AC_555603 - Claims services AC_555604 - Cargo insurance AC_555606 - Claims insurance other AC_555605 - Claims insurance passenger	The formula derived from the PnL tool is consistent with, but more detailed than, the Appendix E formula.

Appendix II: Additive Rates by Route

In order to compute the additive contributions, the PnL tool contains an up-to-date list of additive rates for each route. For easy reference, that list is reproduced below.

Route Code	Route Name	Marketing	T&E	MoE	OBS	Police	SSS	NEC Thru Revenue Charge
APT_RT_03	Ethan Allen Express	1.40%	37.20%	27.10%	10.00%	\$0.005	3.25%	N/A
APT_RT_04A	Vermonteer (calculated)	2.30%	29.40%	27.10%	10.00%	\$0.005	3.25%	\$0.25
APT_RT_07	Maple Leaf	1.40%	37.20%	27.10%	10.00%	\$0.005	3.25%	N/A
APT_RT_09	The Downeaster	1.40%	29.40%	27.10%	10.00%	\$0.005	3.25%	N/A
APT_RT_12A	New Haven - Springfield (calculated)	2.30%	29.40%	27.10%	10.00%	\$0.005	3.25%	\$0.25
APT_RT_14	Keystone Service	2.30%	31.30%	27.10%	10.00%	\$0.005	3.25%	\$0.25
APT_RT_15	Empire Service	1.40%	37.20%	27.10%	10.00%	\$0.005	3.25%	N/A
APT_RT_20	Chicago-St.Louis	2.30%	30.40%	27.10%	10.00%	\$0.005	3.25%	N/A
APT_RT_21	Hiawathas	2.30%	30.40%	27.10%	10.00%	\$0.005	3.25%	N/A
APT_RT_22	Wolverines	2.30%	30.40%	27.10%	10.00%	\$0.005	3.25%	N/A
APT_RT_23	Illini	2.30%	30.40%	27.10%	10.00%	\$0.005	3.25%	N/A
APT_RT_24	Illinois Zephyr	2.30%	30.40%	27.10%	10.00%	\$0.005	3.25%	N/A
APT_RT_29	Heartland Flyer	1.40%	29.20%	27.10%	10.00%	\$0.005	3.25%	N/A
APT_RT_35	Pacific Surfliner	1.40%	29.20%	27.10%	10.00%	\$0.005	3.25%	N/A
APT_RT_36	Cascades	1.40%	32.40%	27.10%	10.00%	\$0.005	3.25%	N/A
APT_RT_37	Capitols	1.40%	34.30%	27.10%	10.00%	\$0.005	3.25%	N/A
APT_RT_39	San Joaquins	1.40%	32.40%	27.10%	10.00%	\$0.005	3.25%	N/A
APT_RT_40	Adirondack	1.40%	37.20%	27.10%	10.00%	\$0.005	3.25%	N/A
APT_RT_41	Blue Water	2.30%	30.40%	27.10%	10.00%	\$0.005	3.25%	N/A
APT_RT_46	Washington-Lynchburg	2.30%	33.10%	27.10%	10.00%	\$0.005	3.25%	\$0.25
APT_RT_47	New York-Newport News	2.30%	33.10%	27.10%	10.00%	\$0.005	3.25%	\$0.25
APT_RT_50	Washington-Norfolk	2.30%	33.10%	27.10%	10.00%	\$0.005	3.25%	\$0.25
APT_RT_51	Washington-Richmond	2.30%	33.10%	27.10%	10.00%	\$0.005	3.25%	\$0.25
APT_RT_54	Hoosier State	2.30%	30.40%	27.10%	10.00%	\$0.005	3.25%	N/A
APT_RT_56	Kansas City-St.Louis	1.40%	30.40%	27.10%	10.00%	\$0.005	3.25%	N/A
APT_RT_57	Pennsylvanian	2.30%	31.30%	27.10%	10.00%	\$0.005	3.25%	\$0.25
APT_RT_65	Pere Marquette	2.30%	30.40%	27.10%	10.00%	\$0.005	3.25%	N/A
APT_RT_66	Carolinian	2.30%	33.10%	27.10%	10.00%	\$0.005	3.25%	\$0.25
APT_RT_67	Piedmont	1.40%	33.50%	27.10%	10.00%	\$0.005	3.25%	N/A

Appendix III: Interpreting the Companion Workbook

This report is accompanied by an Excel workbook based on the PnL tool (but without financial data), containing three sheets:

1. A “Base” sheet, where detailed cost data are stored
2. A “Base – Dictionary and Key” sheet, which describes the elements of the “Base” sheet
3. A “209 View” sheet, which summarizes the tool’s output

Certain rows in the “Base” sheet are dedicated to costs that form part of a category, and certain rows (highlighted in darker blue or gray) are dedicated to totals for each category. In certain cases where an entire category can be described with a single row – for instance, T&E Crew Labor – there is just a single row that describes both a category’s constituent costs and its total. Rows with red text indicated that the associated costs are subtracted from a total.

In addition to the calculations for PRIIA 209 routes, the PnL tool also computes totals for an internal Amtrak report called a Route Performance Report (RPR). An asterisk in Column D of the “Base” sheet indicates that the costs described in a particular row are assigned to a state-supported route per the PRIIA 209 methodology, and an asterisk in Column C indicates the cost is included in the RPR. A row may be assigned to one or both totals.

The “209 View” tab simply summarizes all of the totals from the “Base” tab and, when populated with financial data, computes the six Support Fee additives described in the Methodology.