

Feature Comparison – Major Commercial Economic Models

Feature	REDYN	REMI	IMPLAN	RIMS	Notes
Access/Subscription	Internet/Yes	Desktop CD/No	Desktop CD/No	Desktop CD/No	1*
Process to Deliver Custom Study Models	Immediate at user run time, any time	Queue, batch, + mail or overnight	Batch + mail or overnight	Batch + mail or overnight	2*
# of Custom Area Study Models per User	Build any custom models as needed	One (1) model per client	Alternative single regions only	Alternative single regions only	3*
Fee for User-defined Custom Study Models	None within subscription	Non-trivial fees for more models	None, but 1 region only	None, but 1 region only	4*
Dynamic Forecast	Yes (50 years)	Yes (to 2050)	No	No	5
Nonlinear Forecast	Yes	Minimal	n/a	n/a	6
Active Multi-regions	3,100+	80+ maximum	None	None	7
Automatic MRUS	Yes	No	n/a	n/a	8*
Impedance Database	Yes	No	No	No	9*
# of Transportation Modes (Trade Flow)	5 (road/rail/air/water/special)	None	None	None	10*
Last History Year Lag	Soon: 6-7 months	2+ years	2 years	90-180 days	11*
Industry Detail	NAICS 5 (703)	REMI 3 (169)	NAICS 2-5 (509)	NAICS (473)	12
Commodity Detail and Classification Type	NAICS /180+ non-agr commods	None	SIC /528 commods incl agr	None	13*
Std Occup Code Detail	820+ /SOC 6-digit	90+ /std; 820+ /fee	None	None	14
IO Tables	Make & Use	Industry only	Make & Use	Industry only	15
Integrated IO-SAM	Yes	No	Partial	No	16*
Wage Bill & Empl	CBP & REIS	CBP & REIS	CBP & REIS	REIS only	17
Suppression Fill for Wage Bill & Empl	NAICS 5-digit RAS process	NAICS 4-digit statistical process	Yes, but not exhaustive	n/a	18
Disposable Income incl Commuters	REIS direct & Res Adj/JTW/gravity	REIS directly & Res Adj/JTW	REIS directly & Res Adj/JTW	No data access	19*
County Consumption	REIS & NIPA	REIS & NIPA	REIS & NIPA	No data access	20*
County Output	Wages & NIPA	Wages & NIPA	Wages & NIPA	No data access	21*
County Output by Commodity	Output & detailed IO Make Table	None	Output & IO Make Table	None	22
Demographics/Migr	Yes/rational migr	Yes/adaptive migr	No	No	23*
Business Cycle	Yale—Fair-Parke	U. Mich.—RSQE	n/a	n/a	24
BEA IO Forecast	Yes	No	No	No	25*
Multi-regional Search for All Suppliers	Search process by region for full US	Search step only for client's regions	Search step only for one region	n/a	26*
Analytics	CGE and IO	CGE and IO	IO only	Multipliers only	27
Jobs+Wages+Output	Blended handling	Double count input	Double counts	Double counts	28
Backcasting	Plan 1998 in 2006	No	No	n/a	29*
Subcounty Regions	Plan for 2006	Yes (manual)	By ZIP Code	No	30
Production Function Includes All Supply, Demand, Trade Flow	Inclusive function for IO and CGE processing	Non-inclusive function needs post process equations	No endogenous gravity-based trade flow	n/a	31*
Displacement Effect	Allocated or Prop	Allocated only	No	No	32*
Induced Investment	Yes	Yes	No	n/a	33
Fiscal Effects	Yes (standalone)	Yes (integrated)	No	No	34
Display Data Results	Multi-regional	Region by region	One region	One region	35*
Consultant/Other User	Incremental fee	Non-trivial fees	Full price fee	No added fee	36*

***/ Line Notes for Features:**

- 1-4: REDYN subscribers subscribe to a pool of regions from which to build custom run time models at will.
- 8: The REDYN model automatically creates and reports on an active extra region for the rest-of-US outside the region(s) being modeled. This allows results for the selected region(s) to reflect endogenous trade flow, supply chain, and other demand effects stemming from the whole multi-region US (**MRUS**) model.
- 9, 10, 13: REDYN's New Economic Geography (NEG) engine applies a complete database of impedance measures by transport mode developed by Oak Ridge National Laboratories. Unlike straight-line measures, impedance can differ between regions with the mode and with the direction of travel, and trade flows can be estimated by commodity by mode. ORNL's database also enables REDYN's equilibrium model to estimate economic effects from transportation network models, and to estimate freight system effects on the economy due to commodity volume changes or transport mode capacity changes in county transportation networks.
- 11: The REDYN model uses available CBP and REIS county values to allocate current US wage bill and employment data to populate counties with apportioned detail numbers. Initial data from 2001; soon 2005.
- 16: The REDYN commodity make-and-use Input-Output tables use a Social Accounting Matrix to capture every economic entity type. Entities include producers (industries), employed labor (occupations), remittance cohorts (unemployed labor, retirees), governments, investors, and speculators. Commodities include producer commodities, labor occupations, transfer payments, government goods, financial capital, and physical capital.
- 19-21: The impedance database (note 9 above) enables REDYN to separate the process for populating the database from processes for estimating a gravity model's effective distance parameters. REDYN can use gravity analysis on commuter Journey-to-Work to estimate occupations and income levels by residence.
- 23: Intrinsic rational expectations induce migration from economic activity subject to cohort regional constants.
- 25: The REDYN model extends the very detailed BEA IO make-and-use tables year-by-year to match the annual changes in make-and-use composition implied by the 10-year BLS IO tables. This generates a detailed annual forecast series of national IO make-and-use tables.
- 26: The REDYN model applies the detailed national IO use tables to estimate a complete US multi-regional supply response to indirect and induced demand, and to exogenous final demand, in a search cycle which looks for the suppliers of suppliers across all US industries by every US region until the process cuts off.
- 29: The REDYN model will use 2001-2002 county values to allocate 1998-2000 US NAICS data to counties.
- 31: The inclusive REDYN commodity transformation production function captures all production and NEG gravity relationships – there is no need for post-process adjustment equations. Detailed industries and other entities by region by year transform input commodities into output commodities using a robust, nonlinear, dynamic, parameterized, endogenous, iterative production function in a continuous process that fully includes intermediate and factor inputs, final demand, jobs and output, and endogenous gravity trade flows.
- 32: Displacement is sales crowding out; REDYN allows supply-source allocation or equal proportion crowding.
- 35: The REDYN report suite automatically includes a comparative regional display format as an embedded feature at no extra cost. Results are generated as sheets in a spreadsheet book with full sorting, charting, scaling, and pivot capabilities.
- 36: Subscribers can offer access to other users (e.g., mixed state/local agencies, partners, clients, etc.) through user-group web pages with discounts or rebates up to 50% based on the size of the master subscription—and subscribers and other users can add staff or consultants by one or more new users on an incremental fee basis.