

# Package ‘panelsummary’

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**Type** Package

**Title** Create Publication-Ready Regression Tables with Panels

**Version** 0.1.1

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**Description** Create an automated regression table that is well-suited for models that are estimated with multiple dependent variables. 'panelsummary' extends 'modelsummary' (Arel-Bundock, V. (2022) <[doi:10.18637/jss.v103.i01](https://doi.org/10.18637/jss.v103.i01)>) by allowing regression tables to be split into multiple sections with a simple function call. Utilize familiar arguments such as `fmt`, `estimate`, `stastic`, `vcov`, `conf_level`, `stars`, `coef_map`, `coef_omit`, `coef_rename`, `gof_map`, and `gof_omit` from 'modelsummary' to clean the table, and additionally, add a row for the mean of the dependent variable without external manipulation.

**License** GPL (>= 3)

**URL** <https://github.com/michaeltopper1/panelsummary>,  
<https://michaeltopper1.github.io/panelsummary/>

**BugReports** <https://github.com/michaeltopper1/panelsummary/issues>

**Imports** dplyr (>= 1.0.9), fixest (>= 0.10.4), kableExtra (>= 1.3.4),  
methods (>= 4.1.3), modelsummary (>= 1.3.0), rlang (>= 1.0.6),  
stringr (>= 1.4.1), tidyselect (>= 1.2.0)

**Suggests** covr, knitr, rmarkdown, testthat (>= 3.0.0), tibble (>= 3.1.8), utils (>= 4.1.3)

**Config/testthat/edition** 3

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**VignetteBuilder** knitr

**NeedsCompilation** no

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Vincent Arel-Bundock [cph] (Some documentation is inherited from  
'modelsummary')

**Repository** CRAN

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clean_raw	<i>Pass a panelsummary::panelsummary_raw dataframe into kableExtra::kbl() with typical defaults</i>
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### Description

‘clean\_raw’ Passes a panelsummary::panelsummary\_raw dataframe that has (or has not) been edited further into kableExtra::kbl() with default settings that look publication-ready. This includes changing the column names and fixing the alignment.

### Usage

```
clean_raw(
  data.frame,
  alignment = NULL,
  colnames = NULL,
  format = NULL,
  caption = NULL
)
```

### Arguments

data.frame	The data.frame (or tibble) from panelsummary::panelsummary_raw() that has been manipulated.
alignment	A character string. By default, it is set to left adjusting the first column, and centering the rest of the columns. For example, a model with three columns will have adjustment of "lcc".
colnames	An optional vector of strings. The vector of strings should have the same length as the number columns of the table. * ‘NULL’ (the default): colnames are defaulted to a whitespace, followed by (1), (2), ....etc.
format	A character string. Possible values are latex, html, pipe (Pandoc’s pipe tables), simple (Pandoc’s simple tables), and rst. The value of this argument will be automatically determined if the function is called within a knitr document. The format value can also be set in the global option knitr.table.format. If format is a function, it must return a character string.
caption	A string. The table caption.

**Value**

A raw data frame that is ready for further manipulation.

**Examples**

```
## Cleaning a panelsummary_raw dataframe with clean_raw  
ols_1 <- mtcars |> fixest::feols(mpg ~ cyl | gear + carb, cluster = ~hp)  
ols_2 <- mtcars |> fixest::feols(displ ~ cyl | gear + carb, cluster = ~hp)  
panelsummary_raw(ols_1, ols_2) |> clean_raw()
```

---

connect\_means

*Merges the means to the modelsummary output dataframe*

---

**Description**

'connect\_means' connects the means to the modelsummary dataframe.

**Usage**

```
connect_means(panel_df, means)
```

**Arguments**

panel_df	The modelsummary dataframe supplied from modelsummary::modelsummary(x, output = "data.frame")
means	The list of named vectors of means which correspond to each model.

**Value**

A data.frame with the attached means.

models\_supported      *all models supported by panelsummary*

---

**Description**

all models supported by panelsummary

**Usage**

```
models_supported()
```

**Value**

a list of all modeltypes supported by panelsummary

**Examples**

```
models_supported()
```

---

panelsummary      *Create a regression table with multiple panels*

---

**Description**

‘panelsummary’ Creates a beautiful and customizable regression table with panels. This function is best used to summarize multiple dependent variables that are passed through the same regression models. This function returns a kableExtra object which can then be edited using kableExtra’s suite of functions.

**Usage**

```
panelsummary(  
  ...,  
  panel_labels = NULL,  
  mean_dependent = FALSE,  
  colnames = NULL,  
  caption = NULL,  
  format = NULL,  
  collapse_fe = FALSE,  
  bold = FALSE,  
  italic = FALSE,  
  hline_after = FALSE,  
  hline_before_fe = TRUE,  
  fmt = 3,  
)
```

```

estimate = "estimate",
statistic = "std.error",
vcov = NULL,
conf_level = 0.95,
stars = FALSE,
coef_map = NULL,
coef_omit = NULL,
coef_rename = NULL,
gof_map = NULL,
gof_omit = NULL
)

```

## Arguments

...	A regression model or models (see <code>panelsummary::models_supported</code> for classes that are supported). * The regression model can be a list of models or a singular object. * If a list is passed in, one column for each list is created. Each argument will correspond to a panel. * If only one object is passed in, there will be no panels and the output will be similar to evaluating <code>modelssummary::modelssummary()</code> followed by <code>kableExtra::kbl()</code>
<code>panel_labels</code>	A character vector. How to label each panel in the table. * 'NULL' (the default): the panels will be labeled "Panel A:", "Panel B:",...etc.
<code>mean_dependent</code>	A boolean. For use with <code>fixest</code> objects only. * 'FALSE' (the default): the mean of the dependent variable will not be shown in the resulting table. * 'TRUE': the mean of the dependent variable will be shown in the resulting table.
<code>colnames</code>	An optional vector of strings. The vector of strings should have the same length as the number columns of the table. * 'NULL' (the default): <code>colnames</code> are defaulted to a whitespace, followed by (1), (2), ....etc.
<code>caption</code>	A string. The table caption.
<code>format</code>	A character string. Possible values are <code>latex</code> , <code>html</code> , <code>pipe</code> (Pandoc's pipe tables), <code>simple</code> (Pandoc's simple tables), and <code>rst</code> . The value of this argument will be automatically determined if the function is called within a knitr document. The <code>format</code> value can also be set in the global option <code>knitr.table.format</code> . If <code>format</code> is a function, it must return a character string.
<code>collapse_fe</code>	A boolean. For use with <code>fixest</code> objects only. Determines whether fixed effects should only be included in the bottom of the table. This is suited for when each panel has the same models with the same fixed effects. * 'FALSE' (the default): fixed effects are shown in each panel. * 'TRUE': fixed effects are shown only at the bottom of the final panel, separated by a horizontal line (see <code>hline_before_fe</code> )
<code>bold</code>	A boolean. Determines whether the panel names should be in bold font. * 'FALSE' (the default): the panel names are not in bold. * 'TRUE': the panel names are bolded
<code>italic</code>	A boolean. Determines whether the panel names should be in italics. * 'FALSE' (the default): the panel names are not in italics. * 'TRUE': the panel names will be in italics.

hline_after	A boolean. Adds a horizontal line after the panel labels. * 'FALSE' (the default): there is not horizontal line after the panel labels. * 'TRUE': a horizontal line will appear after the panel labels.
hline_before_fe	A boolean. To be used only when collapse_fe = TRUE, and hence with fixest objects only. Adds a horizontal line before the fixed effects portion of the table.
fmt	<p>how to format numeric values: integer, user-supplied function, or modelsummary function.</p> <ul style="list-style-type: none"> <li>• Integer: Number of decimal digits</li> <li>• User-supplied functions: <ul style="list-style-type: none"> <li>– Any function which accepts a numeric vector and returns a character vector of the same length.</li> </ul> </li> <li>• modelsummary functions: <ul style="list-style-type: none"> <li>– <code>fmt = fmt_significant(2)</code>: Two significant digits (at the term-level)</li> <li>– <code>fmt = fmt_decimal(digits = 2, pdigits = 3)</code>: Decimal digits for estimate and p values</li> <li>– <code>fmt = fmt_sprintf("%.3f")</code>: See ?sprintf</li> <li>– <code>fmt = fmt_term("(Intercept)" = 1, "X" = 2)</code>: Format terms differently</li> <li>– <code>fmt = fmt_statistic("estimate" = 1, "std.error" = 2)</code>: Format statistics differently.</li> <li>– <code>fmt = fmt_identity()</code>: unformatted raw values</li> </ul> </li> <li>• string: <ul style="list-style-type: none"> <li>• Note on LaTeX output: To ensure proper typography, all numeric entries are enclosed in the <code>\num{}</code> command, which requires the <code>siunitx</code> package to be loaded in the LaTeX preamble. This behavior can be altered with global options. See the 'Details' section.</li> </ul> </li> </ul>
estimate	<p>a single string or a character vector of length equal to the number of models. Valid entries include any column name of the data.frame produced by <code>get_estimates(model)</code>, and strings with curly braces compatible with the <code>glue</code> package format. Examples:</p> <ul style="list-style-type: none"> <li>• <code>"estimate"</code></li> <li>• <code>"{estimate} ({std.error}){stars}"</code></li> <li>• <code>"{estimate} [{conf.low}, {conf.high}]"</code></li> </ul>
statistic	<p>vector of strings or <code>glue</code> strings which select uncertainty statistics to report vertically below the estimate. NULL omits all uncertainty statistics.</p> <ul style="list-style-type: none"> <li>• <code>"conf.int", "std.error", "statistic", "p.value", "conf.low", "conf.high",</code> or any column name produced by: <code>get_estimates(model)</code></li> <li>• <code>glue</code> package strings with braces, with or without R functions, such as: <ul style="list-style-type: none"> <li>– <code>"{p.value} [{conf.low}, {conf.high}]"</code></li> <li>– <code>"Std.Error: {std.error}"</code></li> <li>– <code>"exp(estimate) * std.error"</code></li> </ul> </li> <li>• Numbers are automatically rounded and converted to strings. To apply functions to their numeric values, as in the last <code>glue</code> example, users must set <code>fmt=NULL</code>.</li> </ul>

	<ul style="list-style-type: none"> <li>• Parentheses are added automatically unless the string includes glue curly braces {}.</li> </ul>
<code>vcov</code>	<p>robust standard errors and other manual statistics. The <code>vcov</code> argument accepts six types of input (see the 'Details' and 'Examples' sections below):</p> <ul style="list-style-type: none"> <li>• <code>NULL</code> returns the default uncertainty estimates of the model object</li> <li>• string, vector, or (named) list of strings. "iid", "classical", and "constant" are aliases for <code>NULL</code>, which returns the model's default uncertainty estimates. The strings "HC", "HC0", "HC1" (alias: "stata"), "HC2", "HC3" (alias: "robust"), "HC4", "HC4m", "HC5", "HAC", "NeweyWest", "Andrews", "panel-corrected", "outer-product", and "weave" use variance-covariance matrices computed using functions from the <code>sandwich</code> package, or equivalent method. The behavior of those functions can (and sometimes <i>must</i>) be altered by passing arguments to <code>sandwich</code> directly from <code>modelsummary</code> through the ellipsis (<code>...</code>), but it is safer to define your own custom functions as described in the next bullet.</li> <li>• function or (named) list of functions which return variance-covariance matrices with row and column names equal to the names of your coefficient estimates (e.g., <code>stats::vcov</code>, <code>sandwich::vcovHC</code>, <code>function(x) vcovPC(x, cluster="country")</code>).</li> <li>• formula or (named) list of formulas with the cluster variable(s) on the right-hand side (e.g., <code>~clusterid</code>).</li> <li>• named list of <code>length(models)</code> variance-covariance matrices with row and column names equal to the names of your coefficient estimates.</li> <li>• a named list of <code>length(models)</code> vectors with names equal to the names of your coefficient estimates. See 'Examples' section below. Warning: since this list of vectors can include arbitrary strings or numbers, <code>modelsummary</code> cannot automatically calculate p values. The <code>stars</code> argument may thus use incorrect significance thresholds when <code>vcov</code> is a list of vectors.</li> </ul>
<code>conf_level</code>	<p>numeric value between 0 and 1. confidence level to use for confidence intervals. Setting this argument to <code>NULL</code> does not extract confidence intervals, which can be faster for some models.</p>
<code>stars</code>	<p>to indicate statistical significance</p> <ul style="list-style-type: none"> <li>• <code>FALSE</code> (default): no significance stars.</li> <li>• <code>TRUE</code>: <code>+=.1</code>, <code>*=.05</code>, <code>**=.01</code>, <code>***=0.001</code></li> <li>• Named numeric vector for custom stars such as <code>c('*' = .1, '+' = .05)</code></li> <li>• Note: a legend will not be inserted at the bottom of the table when the estimate or statistic arguments use "glue strings" with <code>{stars}</code>.</li> </ul>
<code>coef_map</code>	<p>character vector. Subset, rename, and reorder coefficients. Coefficients omitted from this vector are omitted from the table. The order of the vector determines the order of the table. <code>coef_map</code> can be a named or an unnamed character vector. If <code>coef_map</code> is a named vector, its values define the labels that must appear in the table, and its names identify the original term names stored in the model object: <code>c("hp:mpg"="HPxM/G")</code>. See Examples section below.</p>
<code>coef_omit</code>	<p>integer vector or regular expression to identify which coefficients to omit (or keep) from the table. Positive integers determine which coefficients to omit.</p>

Negative integers determine which coefficients to keep. A regular expression can be used to omit coefficients, and perl-compatible "negative lookaheads" can be used to specify which coefficients to *keep* in the table. Examples:

- `c(2, 3, 5)`: omits the second, third, and fifth coefficients.
- `c(-2, -3, -5)`: negative values keep the second, third, and fifth coefficients.
- `"ei"`: omit coefficients matching the "ei" substring.
- `"^Volume$"`: omit the "Volume" coefficient.
- `"ei|rc"`: omit coefficients matching either the "ei" or the "rc" substrings.
- `"^(?!Vol)"`: keep coefficients starting with "Vol" (inverse match using a negative lookahead).
- `"^(?!.*ei)"`: keep coefficients matching the "ei" substring.
- `"^(?!.*ei|. *pt)"`: keep coefficients matching either the "ei" or the "pt" substrings.
- See the Examples section below for complete code.

<code>coef_rename</code>	<p>logical, named or unnamed character vector, or function</p> <ul style="list-style-type: none"> <li>• Logical: TRUE renames variables based on the "label" attribute of each column. See the Example section below.</li> <li>• Unnamed character vector of length equal to the number of coefficients in the final table, after <code>coef_omit</code> is applied.</li> <li>• Named character vector: Values refer to the variable names that will appear in the table. Names refer to the original term names stored in the model object. Ex: <code>c("hp:mpg"="hp X mpg")</code></li> <li>• Function: Accepts a character vector of the model's term names and returns a named vector like the one described above. The <code>modelsummary</code> package supplies a <code>coef_rename()</code> function which can do common cleaning tasks: <code>modelsummary(model, coef_rename = coef_rename)</code></li> </ul>
<code>gof_map</code>	<p>rename, reorder, and omit goodness-of-fit statistics and other model information. This argument accepts 4 types of values:</p> <ul style="list-style-type: none"> <li>• NULL (default): the <code>modelsummary::gof_map</code> dictionary is used for formatting, and all unknown statistic are included.</li> <li>• character vector: "all", "none", or a vector of statistics such as <code>c("rmse", "nobs", "r.squared")</code>. Elements correspond to <code>colnames</code> in the <code>data.frame</code> produced by <code>get_gof(model)</code>. The <code>modelsummary::gof_mapdefault</code> dictionary is used to format and rename statistics.</li> <li>• NA: excludes all statistics from the bottom part of the table.</li> <li>• <code>data.frame</code> with 3 columns named "raw", "clean", "fmt". Unknown statistics are omitted. See the 'Examples' section below.</li> <li>• list of lists, each of which includes 3 elements named "raw", "clean", "fmt". Unknown statistics are omitted. See the 'Examples section below'.</li> </ul>
<code>gof_omit</code>	<p>string regular expression (perl-compatible) used to determine which statistics to omit from the bottom section of the table. A "negative lookahead" can be used to specify which statistics to <i>keep</i> in the table. Examples:</p> <ul style="list-style-type: none"> <li>• <code>"IC"</code>: omit statistics matching the "IC" substring.</li> <li>• <code>"BIC AIC"</code>: omit statistics matching the "AIC" or "BIC" substrings.</li> <li>• <code>"^(?!.*IC)"</code>: keep statistics matching the "IC" substring.</li> </ul>



**Value**

A kableExtra object that is instantly customizable by kableExtra's suite of functions.

**Examples**

```
# Panelsummary with lm -----
reg_1 <- lm(mpg ~ hp + cyl, data = mtcars)
reg_2 <- lm(displ ~ hp + cyl, data = mtcars)

panelsummary(reg_1, reg_2, panel_labels = c("Panel A: MPG", "Panel B: Displacement"))

# Panelsummary with fixest -----
ols_1 <- mtcars |> fixest::feols(mpg ~ cyl | gear + carb, cluster = ~hp)
ols_2 <- mtcars |> fixest::feols(displ ~ cyl | gear + carb, cluster = ~hp)

panelsummary(ols_1, ols_2, mean_dependent = TRUE,
             panel_labels = c("Panel A:MPG", "Panel B: DISP"),
             caption = "The effect of cyl on MPG and DISP",
             italic = TRUE, stars = TRUE)

## Collapsing fixed effects (fixest-only)-----
ols_1 <- mtcars |> fixest::feols(mpg ~ cyl | gear + carb, cluster = ~hp)
ols_2 <- mtcars |> fixest::feols(displ ~ cyl | gear + carb, cluster = ~hp)

panelsummary(ols_1, ols_2, mean_dependent = TRUE,
             collapse_fe = TRUE, panel_labels = c("Panel A: MPG", "Panel B: DISP"),
             caption = "The effect of cyl on MPG and DISP",
             italic = TRUE, stars = TRUE)

## Including multiple models-----
ols_1 <- mtcars |> fixest::feols(mpg ~ cyl | gear + carb, cluster = ~hp)
ols_2 <- mtcars |> fixest::feols(mpg ~ cyl | gear + carb, cluster = ~hp)
ols_3 <- mtcars |> fixest::feols(mpg ~ cyl | gear + carb, cluster = ~hp)
ols_4 <- mtcars |> fixest::feols(displ ~ cyl | gear + carb, cluster = ~hp)

panelsummary(list(ols_1, ols_2, ols_3), ols_4,
             panel_labels = c("Panel A: MPG", "Panel B: DISP"),
             caption = "Multiple models",
             stars = TRUE)
```

---

panelsummary\_raw      *Create a regression data.frame to manually edit further*

---

## Description

‘panelsummary\_raw’ Creates a data.frame for further editing. The data.frame can be directly passed into `kableExtra::kbl()`, or alternatively, passed into `panelsummary::clean_raw()` to get typical defaults from `kableExtra::kbl()`.

## Usage

```
panelsummary_raw(
  ...,
  mean_dependent = FALSE,
  colnames = NULL,
  caption = NULL,
  format = NULL,
  fmt = 3,
  estimate = "estimate",
  statistic = "std.error",
  vcov = NULL,
  conf_level = 0.95,
  stars = FALSE,
  coef_map = NULL,
  coef_omit = NULL,
  coef_rename = NULL,
  gof_map = NULL,
  gof_omit = NULL
)
```

## Arguments

- ... all other arguments are passed through to three functions. See the documentation of these functions for lists of available arguments.
- `parameters::model_parameters` extracts parameter estimates. Available arguments depend on model type, but include:
    - `standardize`, `centrality`, `dispersion`, `test`, `ci_method`, `prior`, `diagnostic`, `rope_range`, `power`, `cluster`, etc.
  - `performance::model_performance` extracts goodness-of-fit statistics. Available arguments depend on model type, but include:
    - `metrics`, `estimator`, etc.
  - `kableExtra::kbl` or `gt::gt` draw tables, depending on the value of the output argument.
- `mean_dependent` A boolean. For use with fixest objects only. \* ‘FALSE’ (the default): the mean of the dependent variable will not be shown in the resulting table. \* ‘TRUE’: the mean of the dependent variable will be shown in the resulting table.

colnames	An optional vector of strings. The vector of strings should have the same length as the number columns of the table. * 'NULL' (the default): colnames are defaulted to a whitespace, followed by (1), (2), ....etc.
caption	A string. The table caption.
format	A character string. Possible values are latex, html, pipe (Pandoc's pipe tables), simple (Pandoc's simple tables), and rst. The value of this argument will be automatically determined if the function is called within a knitr document. The format value can also be set in the global option knitr.table.format. If format is a function, it must return a character string.
fmt	<p>how to format numeric values: integer, user-supplied function, or modelsummary function.</p> <ul style="list-style-type: none"> <li>• Integer: Number of decimal digits</li> <li>• User-supplied functions: <ul style="list-style-type: none"> <li>– Any function which accepts a numeric vector and returns a character vector of the same length.</li> </ul> </li> <li>• modelsummary functions: <ul style="list-style-type: none"> <li>– <code>fmt = fmt_significant(2)</code>: Two significant digits (at the term-level)</li> <li>– <code>fmt = fmt_decimal(digits = 2, pdigits = 3)</code>: Decimal digits for estimate and p values</li> <li>– <code>fmt = fmt_sprintf("%.3f")</code>: See <code>?sprintf</code></li> <li>– <code>fmt = fmt_term("(Intercept)" = 1, "X" = 2)</code>: Format terms differently</li> <li>– <code>fmt = fmt_statistic("estimate" = 1, "std.error" = 2)</code>: Format statistics differently.</li> <li>– <code>fmt = fmt_identity()</code>: unformatted raw values</li> </ul> </li> <li>• string: <ul style="list-style-type: none"> <li>• Note on LaTeX output: To ensure proper typography, all numeric entries are enclosed in the <code>\num{}</code> command, which requires the <code>siunitx</code> package to be loaded in the LaTeX preamble. This behavior can be altered with global options. See the 'Details' section.</li> </ul> </li> </ul>
estimate	<p>a single string or a character vector of length equal to the number of models. Valid entries include any column name of the data.frame produced by <code>get_estimates(model)</code>, and strings with curly braces compatible with the <code>glue</code> package format. Examples:</p> <ul style="list-style-type: none"> <li>• <code>"estimate"</code></li> <li>• <code>"{estimate} ({std.error}){stars}"</code></li> <li>• <code>"{estimate} [{conf.low}, {conf.high}]"</code></li> </ul>
statistic	<p>vector of strings or <code>glue</code> strings which select uncertainty statistics to report vertically below the estimate. NULL omits all uncertainty statistics.</p> <ul style="list-style-type: none"> <li>• <code>"conf.int", "std.error", "statistic", "p.value", "conf.low", "conf.high",</code> or any column name produced by: <code>get_estimates(model)</code></li> <li>• <code>glue</code> package strings with braces, with or without R functions, such as: <ul style="list-style-type: none"> <li>– <code>"{p.value} [{conf.low}, {conf.high}]"</code></li> <li>– <code>"Std.Error: {std.error}"</code></li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>- "exp(estimate) * std.error"</li> <li>• Numbers are automatically rounded and converted to strings. To apply functions to their numeric values, as in the last glue example, users must set <code>fmt=NULL</code>.</li> <li>• Parentheses are added automatically unless the string includes glue curly braces <code>{}</code>.</li> </ul>
<code>vcov</code>	<p>robust standard errors and other manual statistics. The <code>vcov</code> argument accepts six types of input (see the 'Details' and 'Examples' sections below):</p> <ul style="list-style-type: none"> <li>• <code>NULL</code> returns the default uncertainty estimates of the model object</li> <li>• string, vector, or (named) list of strings. "iid", "classical", and "constant" are aliases for <code>NULL</code>, which returns the model's default uncertainty estimates. The strings "HC", "HC0", "HC1" (alias: "stata"), "HC2", "HC3" (alias: "robust"), "HC4", "HC4m", "HC5", "HAC", "NeweyWest", "Andrews", "panel-corrected", "outer-product", and "weave" use variance-covariance matrices computed using functions from the <code>sandwich</code> package, or equivalent method. The behavior of those functions can (and sometimes <i>must</i>) be altered by passing arguments to <code>sandwich</code> directly from <code>modelsummary</code> through the ellipsis (<code>...</code>), but it is safer to define your own custom functions as described in the next bullet.</li> <li>• function or (named) list of functions which return variance-covariance matrices with row and column names equal to the names of your coefficient estimates (e.g., <code>stats::vcov</code>, <code>sandwich::vcovHC</code>, <code>function(x) vcovPC(x, cluster="country")</code>).</li> <li>• formula or (named) list of formulas with the cluster variable(s) on the right-hand side (e.g., <code>~clusterid</code>).</li> <li>• named list of <code>length(models)</code> variance-covariance matrices with row and column names equal to the names of your coefficient estimates.</li> <li>• a named list of <code>length(models)</code> vectors with names equal to the names of your coefficient estimates. See 'Examples' section below. Warning: since this list of vectors can include arbitrary strings or numbers, <code>modelsummary</code> cannot automatically calculate p values. The <code>stars</code> argument may thus use incorrect significance thresholds when <code>vcov</code> is a list of vectors.</li> </ul>
<code>conf_level</code>	<p>numeric value between 0 and 1. confidence level to use for confidence intervals. Setting this argument to <code>NULL</code> does not extract confidence intervals, which can be faster for some models.</p>
<code>stars</code>	<p>to indicate statistical significance</p> <ul style="list-style-type: none"> <li>• <code>FALSE</code> (default): no significance stars.</li> <li>• <code>TRUE</code>: <code>+=.1</code>, <code>*=.05</code>, <code>**=.01</code>, <code>***=0.001</code></li> <li>• Named numeric vector for custom stars such as <code>c('*' = .1, '+' = .05)</code></li> <li>• Note: a legend will not be inserted at the bottom of the table when the estimate or statistic arguments use "glue strings" with <code>{stars}</code>.</li> </ul>
<code>coef_map</code>	<p>character vector. Subset, rename, and reorder coefficients. Coefficients omitted from this vector are omitted from the table. The order of the vector determines the order of the table. <code>coef_map</code> can be a named or an unnamed character vector. If <code>coef_map</code> is a named vector, its values define the labels that must appear in</p>

the table, and its names identify the original term names stored in the model object: `c("hp:mpg"="HPxM/G")`. See Examples section below.

coef_omit	<p>integer vector or regular expression to identify which coefficients to omit (or keep) from the table. Positive integers determine which coefficients to omit. Negative integers determine which coefficients to keep. A regular expression can be used to omit coefficients, and perl-compatible "negative lookaheads" can be used to specify which coefficients to <i>keep</i> in the table. Examples:</p> <ul style="list-style-type: none"> <li>• <code>c(2, 3, 5)</code>: omits the second, third, and fifth coefficients.</li> <li>• <code>c(-2, -3, -5)</code>: negative values keep the second, third, and fifth coefficients.</li> <li>• <code>"ei"</code>: omit coefficients matching the "ei" substring.</li> <li>• <code>"^Volume\$"</code>: omit the "Volume" coefficient.</li> <li>• <code>"ei rc"</code>: omit coefficients matching either the "ei" or the "rc" substrings.</li> <li>• <code>"^(?!Vol)"</code>: keep coefficients starting with "Vol" (inverse match using a negative lookahead).</li> <li>• <code>"^(?!.*ei)"</code>: keep coefficients matching the "ei" substring.</li> <li>• <code>"^(?!.*ei .pt)"</code>: keep coefficients matching either the "ei" or the "pt" substrings.</li> <li>• See the Examples section below for complete code.</li> </ul>
coef_rename	<p>logical, named or unnamed character vector, or function</p> <ul style="list-style-type: none"> <li>• Logical: TRUE renames variables based on the "label" attribute of each column. See the Example section below.</li> <li>• Unnamed character vector of length equal to the number of coefficients in the final table, after <code>coef_omit</code> is applied.</li> <li>• Named character vector: Values refer to the variable names that will appear in the table. Names refer to the original term names stored in the model object. Ex: <code>c("hp:mpg"="hp X mpg")</code></li> <li>• Function: Accepts a character vector of the model's term names and returns a named vector like the one described above. The <code>modelsummary</code> package supplies a <code>coef_rename()</code> function which can do common cleaning tasks: <code>modelsummary(model, coef_rename = coef_rename)</code></li> </ul>
gof_map	<p>rename, reorder, and omit goodness-of-fit statistics and other model information. This argument accepts 4 types of values:</p> <ul style="list-style-type: none"> <li>• NULL (default): the <code>modelsummary::gof_map</code> dictionary is used for formatting, and all unknown statistic are included.</li> <li>• character vector: "all", "none", or a vector of statistics such as <code>c("rmse", "nobs", "r.squared")</code>. Elements correspond to <code>colnames</code> in the <code>data.frame</code> produced by <code>get_gof(model)</code>. The <code>modelsummary::gof_mapdefault</code> dictionary is used to format and rename statistics.</li> <li>• NA: excludes all statistics from the bottom part of the table.</li> <li>• <code>data.frame</code> with 3 columns named "raw", "clean", "fmt". Unknown statistics are omitted. See the 'Examples' section below.</li> <li>• list of lists, each of which includes 3 elements named "raw", "clean", "fmt". Unknown statistics are omitted. See the 'Examples section below'.</li> </ul>

`gof_omit` string regular expression (perl-compatible) used to determine which statistics to omit from the bottom section of the table. A "negative lookahead" can be used to specify which statistics to *keep* in the table. Examples:

- "IC": omit statistics matching the "IC" substring.
- "BIC|AIC": omit statistics matching the "AIC" or "BIC" substrings.
- "^(?!.\*IC)": keep statistics matching the "IC" substring.

### Value

A `kableExtra` object that is instantly customizable by `kableExtra`'s suite of functions.

### Examples

```
## Using panelsummary_raw

ols_1 <- mtcars |> fixest::feols(mpg ~ cyl | gear + carb, cluster = ~hp)
ols_2 <- mtcars |> fixest::feols(displ ~ cyl | gear + carb, cluster = ~hp)

panelsummary_raw(ols_1, ols_2)

## Including multiple models-----

ols_1 <- mtcars |> fixest::feols(mpg ~ cyl | gear + carb, cluster = ~hp)
ols_2 <- mtcars |> fixest::feols(mpg ~ cyl | gear + carb, cluster = ~hp)
ols_3 <- mtcars |> fixest::feols(mpg ~ cyl | gear + carb, cluster = ~hp)
ols_4 <- mtcars |> fixest::feols(displ ~ cyl | gear + carb, cluster = ~hp)

panelsummary_raw(list(ols_1, ols_2, ols_3), ols_4,
  caption = "Multiple models",
  stars = TRUE)
```

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